STUDER
professional audio equipment

Studer A779

Professional Compact Mixer

Deutsch:

1. Allgemeines
2. Bedienungselemente
3. Funktionsbeschreibung
4. Demontage-Anleitung
5. Abgleich

English:

1. General
2. Start-up Procedure
3. Functional Description
4. Disassembly Instructions
5. Alignment

Schemas / Circuit Diagrams

Betriebs- und Serviceanleitung
Operating and Service Instructions

Prepared and edited by
Studer Professional Audio GmbH
Technical Documentation
Althardstrasse 30
CH-8105 Regensdorf – Switzerland
http://www.studer.ch

Copyright by Studer Professional Audio GmbH
Printed in Switzerland
Order no. 10.27.1354 (Ed. 0796)

Subject to change

Studer is a registered trade mark of Studer Professional Audio GmbH, Regensdorf

A Safety Information

CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN ATTENTION RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR ACHTUNG GEFAHR: ELEKTRISCHER SCHLAG NICHT ÖFFNEN	To reduce the risk of electric shock, do not remove covers. No user-serviceable parts inside. Refer servicing to qualified service personnel (i.e., persons having appropriate technical training and experience necessary to be aware of hazards to which they are exposed in performing a repair action, and of measures to minimize the danger of themselves).
	This symbol alerts the user to the presence of un-insulated *dangerous voltage* within the equipment that may be of sufficient magnitude to constitute a risk of electric shock to a person.
	This symbol alerts the user to *important instructions* for operating and maintenance in this documentation.
CLASS I LED PRODUCT CLASS I LASER PRODUCT	Assemblies or sub-assemblies of this product can contain opto-electronic devices. As long as these devices comply with Class I of laser or LED products according to EN 60825-1:1994, they will not be expressly marked on the product. If a special design should be covered by a higher class of this standard, the device concerned will be marked directly on the assembly or sub-assembly in accordance with the above standard.

A1 First Aid

In Case of Electric Shock:

Separate the person as quickly as possible from the electric power source:

- By switching off the equipment,
- By unplugging or disconnecting the mains cable, or
- By pushing the person away from the power source, using dry, insulating material (such as wood or plastic).
- After having suffered an electric shock, *always* consult a doctor.

Warning! ***Do not touch the person or his clothing before the power is turned off, otherwise you stand the risk of suffering an electric shock as well!***

If the Person is Unconscious:

- Lay the person down
- Turn him to one side
- Check the pulse
- Reanimate the person if respiration is poor
- *Call for a doctor immediately.*

B General Installation Instructions

Please consider besides these general instructions also any product-specific instructions in the «Installation» chapter of this manual.

B1 Unpacking

Check the equipment for any transport damage. If the unit is mechanically damaged, if liquids have been spilled or if objects have fallen into the unit, *it must not be connected to the AC power outlet, or it must be immediately disconnected by unplugging the power cable.* Repair must only be performed by trained personnel in accordance with the applicable regulations.

B2 Installation Site

Install the unit in a place where the following conditions are met:

- The temperature and the relative humidity of the environment must be within the specified limits during operation of the unit. Relevant values are the ones at the air inlets of the unit.
- Condensation must be avoided. If the unit is installed in a location with large variation of ambient temperature (e.g. in an OB-van), appropriate precautions must be taken before and after operation (for details on this subject, refer to Appendix 1).
- Unobstructed air flow is essential for proper operation. Air vents of the unit are a functional part of the design and must not be blocked in any way during operation (e.g. by objects placed upon them, placement of the unit on a soft surface, or installation of the unit within a rack or piece of furniture).
- The unit must not be heated up by external sources of heat radiation (sunlight, spot lights).

B3 Earthing and Power Supply

Earthing of units with mains supply (class I equipment) is performed via the protective earth (PE) conductor integrated in the mains cable. Units with battery operation (< 60 V, class III equipment) must be earthed separately.
Earthing the unit is one of the measures for protection against electrical shock hazard (dangerous body currents). Hazardous voltage may not only be caused by a defective power supply insulation, but may also be introduced by the connected audio or control cables.
If the unit is installed with one or several external connections, its earthing must be provided during operation as well as while the unit is not operated.
If the earthing connection can be interrupted, for example, by unplugging the mains plug of an external power supply unit, an additional, permanent earthing connection must be installed using the provided earth terminal.
Avoid ground loops (hum loops) by keeping the loop surface as small as possible (by consequently guiding the earth conductors in a narrow, parallel way), and reduce the noise current flowing through the loop by inserting an additional impedance (common-mode choke).

Class I Equipment (Mains Operation)

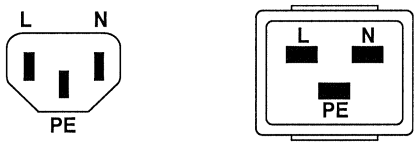
Should the equipment be delivered without a matching mains cable, the latter has to be prepared by a trained person using the attached female plug (IEC320/C13 or IEC320/C19) with respect to the applicable regulations in your country.

Before connecting the equipment to the AC power outlet, check that the local line voltage matches the equipment rating (voltage, frequency) within the admissible tolerance. The equipment fuses must be rated in accordance with the specifications on the equipment.

Equipment supplied with a 3-pole appliance inlet (protection conforming to class I equipment) *must* be connected to a 3-pole AC power outlet so that the equipment cabinet is connected to the protective earth.

For information on mains cable strain relief please refer to Appendix 2.

Female Plugs (IEC320), Front-Side View:



IEC 320 / C13 IEC 320 / C19

European Standard (CENELEC)		North American Standard (NAS)
Brown	L (Live)	Black
Blue	N (Neutral)	White
Green/Yellow	PE (Protective Earth)	Green (or Green/Yellow)

Class III Equipment (Battery Operation up to 60 V_{DC})

Equipment of this protection class must be earthed using the provided earth terminal, if one or more external signals are connected to the unit (see explanation at the beginning of this paragraph).

B4 Electromagnetic Compatibility (EMC)

The unit conforms to the protection requirements relevant to electromagnetic phenomena that are listed in guidelines 89/336/EC and FCC, part 15.

- The electromagnetic interference generated by the unit is limited in such a way that other equipment and systems can be operated normally.
- The unit is adequately protected against electromagnetic interference so that it can operate properly.

The unit has been tested and conforms to the EMC standards of the specified electromagnetic environment, as listed in the following declaration. The limits of these standards ensure protection of the environment and corresponding noise immunity of the equipment with appropriate probability. However, a professional installation and integration within the system are imperative prerequisites for operation without EMC problems.

For this purpose, the following measures must be followed:

- Install the equipment in accordance with the operating instructions. Use the supplied accessories.
- In the system and in the vicinity where the equipment is installed, use only components (systems, equipment) that also fulfill the EMC standards for the given environment.
- Use a system grounding concept that satisfies the safety requirements (class I equipment must be connected with a protective ground conduc-

tor) and that also takes into consideration the EMC requirements. When deciding between radial, surface, or combined grounding, the advantages and disadvantages should be carefully evaluated in each case.

- Use shielded cables where shielding is specified. The connection of the shield to the corresponding connector terminal or housing should have a large surface and be corrosion-proof. Please note that a cable shield connected only single-ended can act as a transmitting or receiving antenna within the corresponding frequency range.
- Avoid ground loops or reduce their adverse effects by keeping the loop surface as small as possible, and reduce the noise current flowing through the loop by inserting an additional impedance (e.g. common-mode choke).
- Reduce electrostatic discharge (ESD) of persons by installing an appropriate floor covering (e.g. a carpet with permanent electrostatic filaments) and by keeping the relative humidity above 30%. Further measures (e.g. conducting floor) are usually unnecessary and only effective if used together with corresponding personal equipment.
- When using equipment with touch-sensitive operator controls, please take care that the surrounding building structure allows for sufficient capacitive coupling of the operator. This coupling can be improved by an additional, conducting surface in the operator's area, connected to the equipment housing (e.g. metal foil underneath the floor covering, carpet with conductive backing).

C Maintenance

All air vents and openings for operating elements (faders, rotary knobs) must be checked on a regular basis, and cleaned in case of dust accumulation. For cleaning, a soft paint-brush or a vacuum cleaner is recommended.
Cleaning the surfaces of the unit is performed with a soft, dry cloth or a soft brush.
Persistent contamination can be treated with a cloth that is slightly humidified with a mild cleaning solution (soap-suds).
For cleaning display windows, commercially available computer/TV screen cleaners are suited. Use only a slightly damp (never wet) cloth.
Never use any solvents for cleaning the exterior of the unit! Liquids must never be sprayed or poured on directly!
For equipment-specific maintenance information please refer to the corresponding chapter in the Operating and Service Instructions manuals.

D Electrostatic Discharge during Maintenance and Repair

Caution:

Observe the precautions for handling devices sensitive to electrostatic discharge!
Many semiconductor components are sensitive to electrostatic discharge (ESD). The life-span of assemblies containing such components can be drastically reduced by improper handling during maintenance and repair work. Please observe the following rules when handling ESD sensitive components:

- ESD sensitive components should only be stored and transported in the packing material specifically provided for this purpose.
- *When performing a repair by replacing complete assemblies, the removed assembly must be sent back to the supplier in the same packing material*

in which the replacement assembly was shipped. If this should not be the case, any claim for a possible refund will be null and void.

- Unpacked ESD sensitive components should only be handled in ESD protected areas (EPA, e.g. area for field service, repair or service bench) and only be touched by persons who wear a wristlet that is connected to the ground potential of the repair or service bench by a series resistor. The equipment to be repaired or serviced as well as all tools and electrically semi-conducting work, storage, and floor mats should also be connected to this ground potential.
- The terminals of ESD sensitive components must not come in uncontrolled contact with electrostatically chargeable (voltage puncture) or metallic surfaces (discharge shock hazard).
- To prevent undefined transient stress of the components and possible damage due to inadmissible voltages or compensation currents, electrical connections should only be established or separated when the equipment is switched off and after any capacitor charges have decayed.

E Repair

Removal of housing parts, shields, etc. exposes energized parts. For this reason the following precautions must be observed:

- Maintenance may only be performed by trained personnel in accordance with the applicable regulations.
- The equipment must be switched off and disconnected from the AC power outlet before any housing parts are removed.
- Even if the equipment is disconnected from the power outlet, parts with hazardous charges (e.g. capacitors, picture tubes) must not be touched until they have been properly discharged. Do not touch hot components (power semiconductors, heat sinks, etc.) before they have cooled off.
- If maintenance is performed on a unit that is opened and switched on, no un-insulated circuit components and metallic semiconductor housings must be touched, neither with your bare hands nor with un-insulated tools.

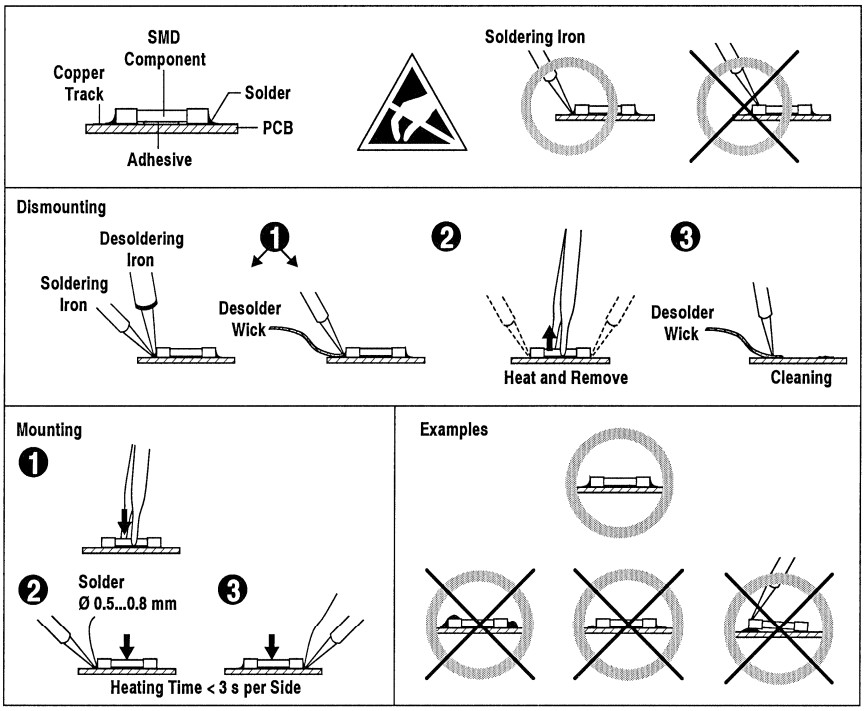
Certain components pose additional hazards:

- *Explosion hazard* from lithium batteries, electrolytic capacitors and power semiconductors (watch the component's polarity. Do not short battery terminals. Replace batteries only by the same type).
- *Implosion hazard* from evacuated display units.
- *Radiation hazard* from laser units (non-ionizing), picture tubes (ionizing).
- *Caustic effect* of display units (LCD) and components containing liquid electrolyte.

Such components should only be handled by trained personnel who are properly protected (e.g. safety goggles, gloves).

E1 SMD Components

Studer has no commercially available SMD components in stock for service purposes. For repair, the corresponding devices have to be purchased locally. The specifications of special components can be found in the service manual.
SMD components should only be replaced by skilled specialists using appropriate tools. No warranty claims will be accepted for circuit boards that have been damaged. Proper and improper SMD soldering joints are illustrated below.



F Disposal

Disposal of Packing Materials

The packing materials have been selected with environmental and disposal issues in mind. All packing material can be recycled. Recycling packing saves raw materials and reduces the volume of waste.
If you need to dispose of the transport packing materials, please try to use recyclable means.

Disposal of Used Equipment

Used equipment contains valuable raw materials as well as materials that must be disposed of professionally. Please return your used equipment via an authorized specialist dealer or via the public waste disposal system, ensuring any material that can be recycled is.
Please take care that your used equipment cannot be abused. To avoid abuse, delete sensitive data from any data storage media. After having disconnected your used equipment from the mains supply, make sure that the mains connector and the mains cable are made useless.

G Declarations of Conformity

G1 Class A Equipment - FCC Notice

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide a reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Caution: *Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment. Also refer to relevant information in this manual.*

G2 CE Declaration of Conformity

We,
Studer Professional Audio GmbH,
CH-8105 Regensdorf,
declare under our sole responsibility that the product
Studer A779, Mixing Console
(starting with serial no. 1823)
to which this declaration relates, according to following regulations of EU directives and amendments

- Low Voltage (LVD):
  73/23/EEC + 93/68/EEC
- Electromagnetic Compatibility (EMC):
  89/336/EEC + 92/31/EEC + 93/68/EEC

is in conformity with the following standards or normative documents:

- Safety:
  EN 60065:1993 (Class II equipment)
- EMC:
  EN 50081-1:1992; EN 50082-1:1992

Regensdorf, November 20, 1995

B. Hochstrasser, President

P. Fiala, Manager QA

Appendix 1: Air Temperature and Humidity

General

Normal operation of the unit or system is warranted under the following ambient conditions defined by *EN 60721-3-3, set IE32, value 3K3.*
This standard consists of an extensive catalogue of parameters, the most important of which are: ambient temperature +5...+40 °C, relative humidity 5...85% (i.e., no formation of condensation or ice); absolute humidity 1...25 g/m³; rate of temperature change < 0.5 °C/min. These parameters are dealt with in the following paragraphs.
Under these conditions the unit or system starts and works without any problem. Beyond these specifications, possible problems are described in the following paragraphs.

Ambient Temperature

Units and systems by Studer are generally designed for an ambient temperature range (i.e. temperature of the incoming air) of +5...+40 °C. When rack mounting the units, the intended air flow and herewith adequate cooling must be provided. The following facts must be considered:

- The admissible ambient temperature range for operation of the semiconductor components is 0 °C to +70 °C (commercial temperature range for operation).
- The air flow through the installation must provide that the outgoing air is always cooler than 70 °C.
- Average heat increase of the cooling air shall be about 20 K, allowing for an additional maximum 10 K increase at the hot components.
- In order to dissipate 1 kW with this admissible average heat increase, an air flow of 2.65 m³/min is required.

Example: A rack dissipating *P = 800 W* requires an air flow of *0.8 * 2.65 m³/min* which corresponds to *2.12 m³/min.*

- If the cooling function of the installation must be monitored (e.g. for fan failure or illumination with spot lamps), the outgoing air temperature must be measured directly above the modules at several places within the rack. The trigger temperature of the sensors should be 65 to 70 °C.

Frost and Dew

The unsealed system parts (connector areas and semiconductor pins) allow for a minute formation of ice or frost. However, formation of dew visible with the naked eye will already lead to malfunctions. In practice, reliable operation can be expected in a temperature range above –15 °C, if the following general rule is considered for putting the cold system into operation:
If the air within the system is cooled down, the relative humidity rises. If it reaches 100%, condensation will arise, usually in the boundary layer between the air and a cooler surface, together with formation of ice or dew at sensitive areas of the system (contacts, IC pins, etc.). Once internal condensation occurs, trouble-free operation cannot be guaranteed, independent of temperature.

Before putting into operation, the system must be checked for internal formation of condensation or ice. Only with a minute formation of ice, direct

evaporation (sublimation) may be expected; otherwise the system must be heated and dried while switched off.

A system without visible internal formation of ice or condensation should be heated up with its own heat dissipation, as homogeneously (and subsequently as slow) as possible; the ambient temperature should then always be lower than the one of the outgoing air.

If it is absolutely necessary to operate the cold system immediately within warm ambient air, this air must be dehydrated. In such a case, the absolute humidity must be so low that the relative humidity, related to the coldest system surface, always remains below 100%.

Ensure that the enclosed air is as dry as possible when powering off (i.e. before switching off in winter, aerate the room with cold, dry air, and remove humid objects as clothes from the room).

These relationships are visible from the following climatogram. For a controlled procedure, thermometer and hygrometer as well as a thermometer within the system will be required.

Example 1: An OB-van having an internal temperature of 20 °C and relative humidity of 40% is switched off in the evening. If temperature falls below +5 °C, dew or ice will be forming.

Example 2: An OB-van is heated up in the morning with air of 20 °C and a relative humidity of 40%. On all parts being cooler than +5 °C, dew or ice will be forming.

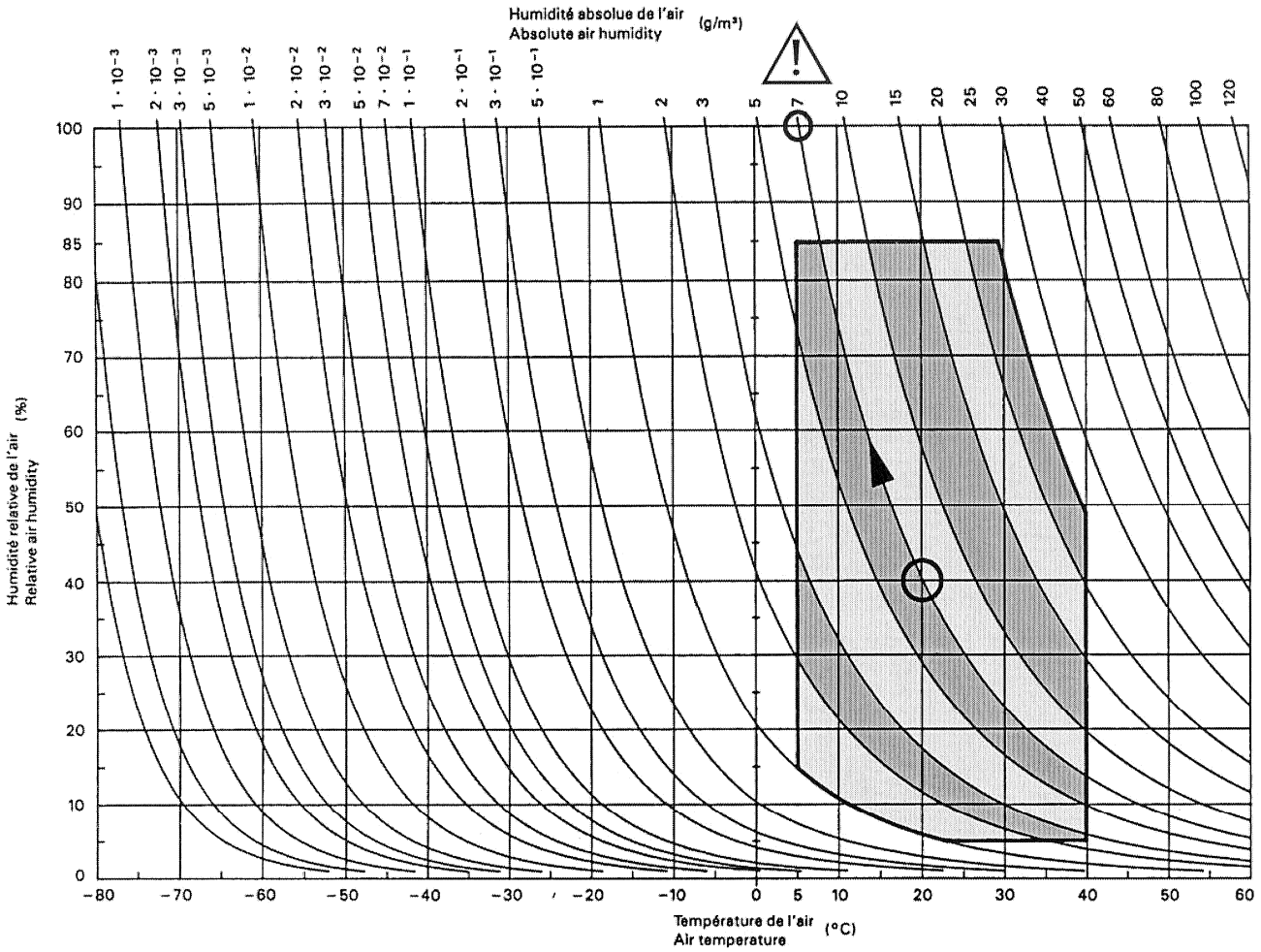
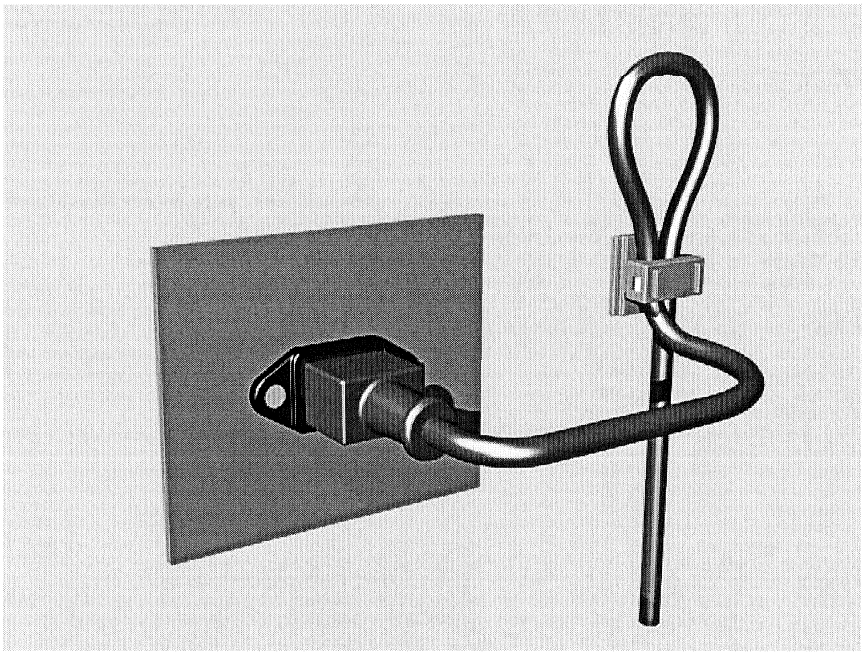


Figure B.3 – Climatogramme pour catégorie 3K3
Climatogram for class 3K3

721-3-3 © CEI:1994

Appendix 2: Mains Connector Strain Relief

For anchoring connectors without a mechanical lock (e.g. IEC mains connectors), we recommend the following arrangement:



Procedure: The cable clamp shipped with your unit is auto-adhesive. For mounting please follow the rules below:

- The surface to be adhered to must be clean, dry, and free from grease, oil, or other contaminants. Recommended application temperature range is +20...+40 °C.
- Remove the plastic protective backing from the rear side of the clamp and apply it firmly to the surface at the desired position. Allow as much time as possible for curing. The bond continues to develop for as long as 24 hours.
- For improved stability, the clamp should be fixed with a screw. For this purpose, a self-tapping screw and an M4 bolt and nut are included.
- Place the cable into the clamp as shown in the illustration above and firmly press down the internal top cover until the cable is fixed.

Appendix 3: Software License

Use of the software is subject to the Studer Professional Audio Software License Agreement set forth below. Using the software indicates your acceptance of this license agreement. If you do not accept these license terms, you are not authorized to use this software.

Under the condition and within the scope of the following Terms and Conditions, Studer Professional Audio AG (hereinafter "Studer") grants the right to use programs developed by Studer as well as those of third parties which have been installed by Studer on or within its products. References to the license programs shall be references to the newest release of a license program installed at the Customer's site.

Programs Covered by the Agreement

License Programs of Studer

The following Terms and Conditions grant the right to use all programs of Studer that are part of the System and/or its options at the time of its delivery to the Customer, as well as the installation software on the original data disk and the accompanying documentation ("License Material"). In this Agreement the word "Programs" shall have the meaning of programs and data written in machine code.

Using the software indicates your acceptance of this license agreement. If you do not accept these license terms, you are not authorized to use this software.

Programs of Third Parties

Programs of third parties are all programs which constitute part of the System and/or its options at the time of delivery to the Customer but have not been developed by Studer. The following conditions are applicable to programs of third parties:

- The right to use third parties' programs is governed by the License Agreement attached hereto (if applicable), which is an integral part of this Agreement. The Customer shall sign any and all License Agreements for all further programs of third parties installed on the system. The Customer shall be deemed to have received all License Agreements upon delivery of the system and/or its options.
- Studer shall accept no responsibility or liability for, and gives no warranties (express or implied) as to the programs of third parties. The Customer waives any and all claims versus Studer for any consequential damages, which might occur due to defects of these programs.

Right of Use

Principle

Studer grants the Customer the non-exclusive right to use the License Material in one copy on the system and/or its options as laid down by the Sales Agreement concluded between the parties and all Terms and Conditions which shall be deemed to form and be read and construed as part of the Sales Agreement. This right is assignable according to the "Assignability" paragraph hereinafter.

Customized Configurations

The Customer is not entitled to alter or develop further the License Material except within the expressly permitted configuration possibilities given by the software installed on the system or elsewhere. All altered programs, including but not limited to the products altered within the permitted configuration possibilities, are covered by this License Agreement.

Reverse Engineering

Reverse engineering is only permitted with the express consent of Studer. The consent of Studer can be obtained but is not limited to the case in which the interface-software can not be provided by Studer. In any case Studer has to be informed immediately upon complete or partial reverse engineering.

Copying the License Material

The Customer is entitled to make one copy of all or parts of the License Material as is necessary for the use according to this Agreement, namely for backup purposes. The Customer shall apply the copyright of Studer found on the License Material onto all copies made by him. Records shall be kept by the Customer regarding the amount of copies made and their place of keeping. The responsibility for the original program and all copies made lies with the Customer. Studer is entitled to check these records on first request. Copies not needed anymore have to be destroyed immediately.

Disclosure of License Material

The License Material is a business secret of Studer. The Customer shall not hand out or in any way give access to parts or the complete License Material to third parties nor to publish any part of the License Material without prior written consent of Studer. The Customer shall protect the License Material and any copies made according to the paragraph above by appropriate defense measures against unauthorized access. This obligation of non-disclosure is a perpetual obligation.
Third parties are entitled to have access to the License Material if they use the License Material at the Customer's site in compliance with this Agreement. Under no circumstance are third parties entitled to have access to the installation software on the original data media. The Customer shall safeguard the original data media accordingly.

Assignability

The rights granted to the Customer according to this License Agreement shall only be assignable to a third party together with the transfer of the system and/or its options and after the prior written consent of Studer.

Rights to License Material

With the exception of the right of use granted by this License Agreement all proprietary rights to the License Material, especially the ownership and the intellectual property rights (such as but not limited to patents and copyright) remain with Studer even if alterations, customized changes or amendments have been made to the License Material.
Studer's proprietary rights are acknowledged by the Customer. The Customer shall undertake no infringements and make no claims of any patent, registered design, copyright, trade mark or trade name, or other intellectual property right.

Warranty, Disclaimer, and Liability

For all issues not covered herewithin, refer to the "General Terms and Conditions of Sales and Delivery" being part of the sales contract.

1 **Allgemeines**

Einführung	1/1
Bedienungselemente	1/2
Anschlussfeld	1/4
Technische Daten	1/7
Zubehör	1/10

2 **Inbetriebnahme**

Gerät ans Netz anschliessen	2/1
Gerät einschalten	2/1
Mikrofon Phantomspeisung	2/1
Eingänge anschliessen	2/2
Ausgänge anschliessen	2/2

3 **Funktionsbeschreibung**

Netzteil	3/1
Anzeige-Einheit	3/1
Eingangs-Einheit	3/2
Summen-Einheit	3/3
Abhör-Einheit	3/3
Ein-/Ausgangs-Einheit	3/4
Kontroll-Abhör-Einheit	3/5

4 **Demontage-Anleitung**

Allgemeine Hinweise	4/1
Gehäuse	4/2
Elektronische Baugruppen	4/4

5 **Abgleichanleitung**

Allgemeine Hinweise	5/1
Netzteil	5/3
Eingangs-Einheit	5/4
Summen-Einheit	5/5
Anzeige-Einheit	5/6
Messen der Audio Daten	5/6

6 **Schemata**

1 Allgemeines

1.1 Einführung 1

1.2 Bedienungselemente 2

1.3 Anschlussfeld 4

1.4 Technische Daten 7

1.4.1 Elektronische Daten 7
1.4.2 Mechanische Daten 9

1.5 Zubehör 10

1.5.1 Zubehörset 10
1.5.2 Montagesatz für 19"-Rack 10
1.5.3 Bus-Verbindungskabel 10
1.5.4 Transportkoffer 10
1.5.5 Drehknöpfe und Drucktasten 11

1 Allgemeines

1.1 Einführung

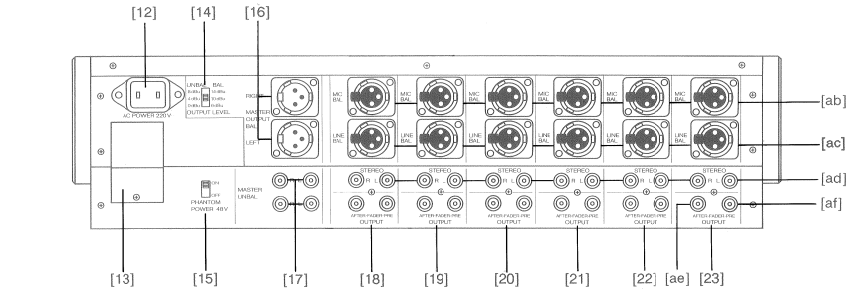
- Das professionelle Kleinmischpult STUDER A779 ist ein universelles Pult vor allem für den mobilen Einsatz. Seine Besonderheit ist, dass in der Grundeinheit jeder der sechs Eingangszüge prinzipiell zweikanalig ausgelegt ist. So kann jeder von ihnen entweder für hochpegelige Signale in Stereo – dann sind die Eingänge asymmetrisch – oder in Mono mit symmetrischem Eingang betrieben werden. Diese Schaltungsart akzeptiert dann auch Mikrofon-Eingangssignale.

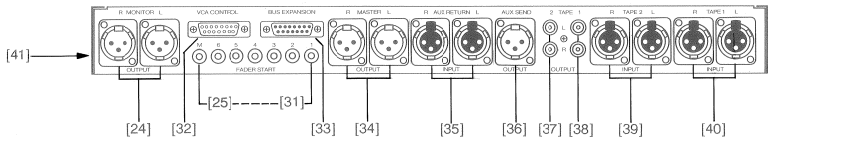
- Die Erweiterungseinheit, die unter der Grundeinheit montiert ist und mit dieser eine Einheit bildet, hat nun zusätzliche Symmetrierstufen eingebaut; damit lassen sich drei hochpegelige Stereorückführungen (sechs Kanäle) z. B. von Tonbandmaschinen oder Effektgeräten symmetrisch abschliessen und jeweils auf einen Eingangszug führen.

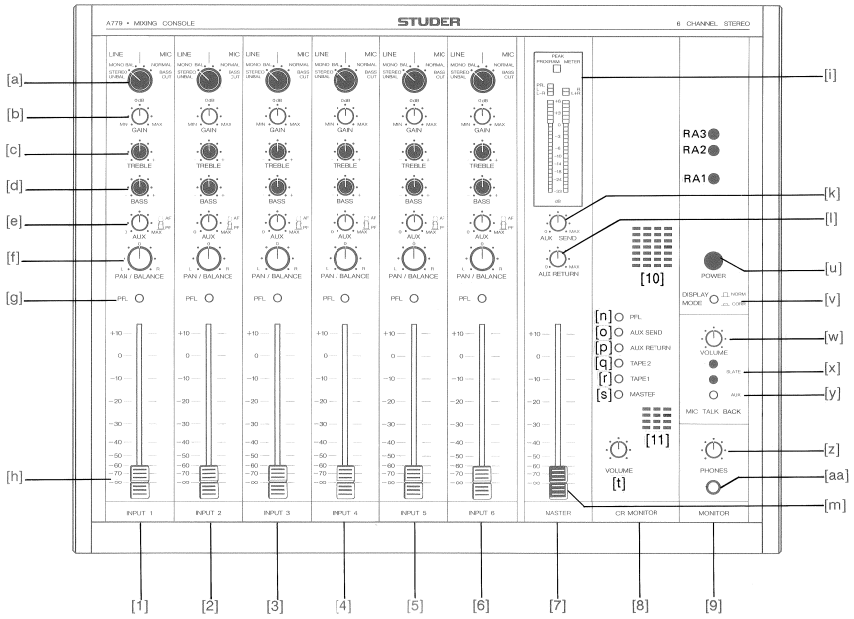
- Je nach Beschaltung kann so das Pult zwischen sechs und vierzehn Eingangskanäle (unter Berücksichtigung der AUX RETURN- Eingänge) aufweisen.

- Für den Fall des Stereobetriebs eines Eingangszuges wirken die Bedienungselemente auf beide Kanäle.

- Wenn in der folgenden Beschreibung von "Einheiten" die Rede ist, so handelt es sich nicht um mechanisch trennbare Baugruppen, sondern um Funktionseinheiten (Beispiel: die "Eingangseinheit" besteht aus einer Platine und aus in die Bedienoberfläche integrierten Bedienelementen; elektrisch ist sie jedoch eine separate Funktionseinheit).







1.2 Bedienungselemente

Bedienungselement	Funktion
[1] INPUT 1	**Stereo-Eingangs-Einheit mit folgenden Elementen:**
[a] INPUT SELECTOR	▪ Eingangswahlschalter. Zur Anwahl der verschiedenen Eingänge: LINE: MONO BAL. (symmetrisch) STEREO UNBAL. (asymmetrisch) MIC: NORMAL (symmetrisch, erdfrei) BASS CUT (Trittschallfilter aktiv)

Vorsicht:
Es dürfen niemals gleichzeitig Hochpegel-Signalquellen und Stereo-HiFi-Signalquellen an der selben Eingangs-Einheit angeschlossen sein!

Bedienungselement	Funktion
[b] GAIN	▪ Eingangspegelregler. Zur Anpassung des Pegels der verschiedenen Signalquellen. Die Skala des Reglers ist bei 0 dB mit einer Eichmarke versehen. Diese kennzeichnet 0 dB Verstärkung über den ganzen Kanal bei Eingangswahlschalter Stellung LINE und 0 dB Stellung von Eingang- und Summenregler.
[c] TREBLE	▪ Höhenregler. Potentiometer zur Anhebung oder Absenkung des Höhenbereichs (±15 dB bei 20 kHz). In der Mittelstellung keine Beeinflussung des Frequenzganges.
[d] BASS	▪ Tiefenregler. Potentiometer zur Anhebung oder Absenkung des Tiefenbereichs (±15 dB bei 20 Hz). In der Mittelstellung keine Beeinflussung des Frequenzganges.
[e] AUX	▪ Hilfsausgang. Zur Aussteuerung der monofonen Hilfs-Sammelschiene mit integriertem Zugschalter für die Umschaltung PF/AF (Pre-Fader/After-Fader).
[f] PAN/BALANCE	▪ In den Betriebsarten LINE, MIC NORM und MIC BASS CUT als Panoramapotentiometer geschaltet (Verteilung des Signals auf den rechten und linken Kanal). In der Betriebsart STEREO als Balanceregler geschaltet.
[g] PFL	▪ Drucktaste für "Pre-Fader-Listening" (Abhören vor dem Flachbahnregler), schaltet das Signal monofon auf die PFL-Sammelschiene.
[h] FADER	▪ Flachbahnregler mit Bereich +10 dB ... -70 dB.
[2] INPUT 2 ... [6] INPUT 6	▪ Stereo-Eingangs-Einheiten mit der gleichen Bestückung wie Eingang 1.
[7] MASTER	**Summe. Stereo-Ausgangs-Einheit mit folgenden Elementen:**
[i] PEAK PROGRAM METER	▪ Programm-Spitzenwertanzeige. 2 LED-Reihen zeigen den momentanen Spitzenwert der angewählten Abhörquelle an. Wird im Stereobetrieb die Momenttaste DISPLAY MODE [v] gedrückt, so kann die Monokompatibilität abgeschätzt werden (siehe 3.2, Seite D 3/1).

EDITION: 12. Oktober 1989

Bedienungselement	Funktion
[k] AUX SEND	■ Pegelregler des Summensignals AUX SEND [36] (Ausgang der monofonen Hilfs-Sammelschiene AUX).
[l] AUX RETURN	■ Pegelregler des stereofonen RETURN-Hilfseinganges [35].
[m] MASTER FADER	■ Stereo-Flachbahnregler für den Summen-Ausgangspegel; Bereich +10 ... -70 dB.
[8] CR MONITOR	**Kontroll-Abhör-Einheit mit folgenden Elementen:**
[n] PFL	■ Drucktaste zur Durchschaltung der PFL-Sammelschiene auf die Abhör-Sammelschiene. (Das monofone PFL-Signal wird zu gleichen Teilen auf den linken und rechten Kanal der Abhör-Sammelschiene geführt.)
[o] AUX SEND	■ Drucktaste zur Durchschaltung der Hilfs-Sammelschiene auf die Abhör-Sammelschiene. (Das monofone AUX-Summensignal wird zu gleichen Teilen auf den linken und rechten Kanal der Abhör-Sammelschiene geführt.)
[p] AUX RETURN	■ Drucktaste zur Durchschaltung des linken und rechten Kanals des Hilfseinganges AUX RETURN [35] auf die Abhör-Sammelschiene.
[q] TAPE 2	■ Drucktaste zur Durchschaltung des linken und rechten Kanals des Einganges TAPE 2 [39] auf die Abhör-Sammelschiene.
[r] TAPE 1	■ Drucktaste zur Durchschaltung des linken und rechten Kanals des Einganges TAPE 1 [38] auf die Abhör-Sammelschiene.
[s] MASTER	■ Drucktaste zur Durchschaltung des linken und rechten Kanals des Summenausganges auf die Abhör-Sammelschiene.
[t] VOLUME	■ Potentiometer zur Pegel-Einstellung des linken und rechten Abhörausganges [24].
[9] MONITOR	**Abhör-Einheit mit folgenden Elementen:**
[u] POWER	■ Netzschalter
[v] DISPLAY MODE	■ Druckschalter zur Umschaltung der Programm-Spitzenwertanzeige. Stellung NORM = Pegelanzeige Stellung CORR = Korrelationsanzeige (siehe Programm-Spitzenwertanzeige [i])
[w] VOLUME MIC	■ Empfindlichkeitsregler des eingebauten Mikrofons [11].
[x] SLATE	■ Aufsprechen auf Summen-Sammelschiene (beide Tasten gleichzeitig drücken).
[y] MIC TALK BACK AUX	■ Aufsprechen auf die Hilfs-Sammelschiene.
[z] VOLUME	■ Potentiometer zur Lautstärke-Einstellung des Abhör-Lautsprechers [10] oder des Kopfhörers [aa].
[aa] PHONES	■ Stereo-Klinkenbuchse zum Anschluss eines Kopfhörers (200 Ω ... 600 Ω). Bei eingestecktem Kopfhörer wird der eingebaute Mithör-Lautsprecher [10] automatisch ausgeschaltet.

Bedienungselement	Funktion
[10] SPEAKER	■ Monitor Abhör-Lautsprecher
[11] MICROPHONE	■ Mikrofon zum Aufsprechen auf die Hilfs- oder Summen-Sammelschiene.

1.3 Anschlussfeld

Bedienungselement	Funktion
[12] AC POWER	■ Netzanschluss
[13] VOLTAGE SELECTOR	■ Netzspannungswähler und Netzsicherung
[14] OUTPUT LEVEL	■ Ausgangspegel. Schiebeschalter zur Anpassung des 0 dB Summenpegels an den verwendeten Studiopegel.

UNBALANCED:
0 dBu = 0,775 $V_{eff.}$
+4 dBu = 1,23 $V_{eff.}$
+8 dBu = 1,95 $V_{eff.}$

BALANCED: (erdfrei)
+6 dBu = 1,55 $V_{eff.}$
+10 dBu = 2,45 $V_{eff.}$
+14 dBu = 3,88 $V_{eff.}$

Alle XLR-Stecker sind einheitlich wie folgt belegt:

1 = Schirm
2 = a - Ader
3 = b - Ader

[15] PHANTOM POWER 48 V	■ Schiebeschalter zur Aktivierung der Mikrofon-Phantomspeisung aller Eingangs-Einheiten (für Kondensator-Mikrofone).
[16] MASTER OUTPUT BAL. L/R	■ Symmetrische Ausgänge des linken und rechten Summenkanals (XLR).
[17] MASTER UNBAL. R/L	■ Jeweils zwei parallelgeschaltete, asymmetrische Ausgänge des linken und rechten Summenkanals (CINCH-Stecker).
[18] INPUT 6	**Stereo-Eingangs-Einheit mit folgender Stecker-Belegung:**
[ab] MIC BAL.	■ Symmetrisch erdfreier Mikrofoneingang (XLR-Stecker, mono).
[ac] LINE BAL.	■ Symmetrischer Hochpegeleingang (XLR-Stecker, mono).
[ad] STEREO L/R	■ Asymmetrische Eingänge für linken und rechten Kanal des Stereo-Hochpegeleinganges (CINCH-Stecker).
[ae] OUTPUT AFTER FADER	■ Asymmetrischer Kanal-Ausgang. Das Signal wird nach dem Flachbahnregler abgegriffen und zu einem Mono-Signal summiert (CINCH-Stecker).

Bedienungselement	Funktion
[af] OUTPUT PRE FADER	■ Asymmetrischer Kanal-Ausgang. Das Signal wird vor dem Flachbahnregler abgegriffen und zu einem Mono-Signal summiert (CINCH-Stecker).
[19] ...[23] INPUT 5 ... 1	■ Stereo-Eingangseinheiten mit identischer Steckerbelegung wie Eingang 6.
[24] MONITOR OUTPUT	■ Abhörausgang. Symmetrische Ausgänge der linken und rechten Abhör-Sammelschiene (XLR-Stecker). Ausgangspegel mit Lautstärkeregler [t] einstellbar. Programmierung zur Stummschaltung (Monitor Cut) bei offenem Mikrofon mit DIP-Codierschalter [41].
[25] FADER START M (MASTER)	■ Klinkenbuchse (3,5 mm, stereo) für den Anschluss eines Faderstartkabels. Der Summenregler betätigt beim Öffnen einen galvanisch getrennten Relais-Arbeitskontakt. (Siehe auch Kap. 3.6)
[26] ...[31] FADERSTART KANAL 6 ...1	■ Klinkenbuchse (3,5 mm, stereo) für den Faderstart-Anschluss. Jeder Eingangsfader schaltet einen Faderstart-Anschluss (vgl. [25] und Kap. 3.6).
[32] VCA CONTROL	■ Die Verstärkungsregler in den einzelnen Eingangskanälen können auch extern gesteuert werden (Option 850). Durch Anlegen entsprechender Steuerspannungen (TTL-Bereich) wird die Verstärkung beeinflusst. Dabei gilt: 0V - Regler ganz geöffnet (v = 0dB) +5V - Regler ganz geschlossen(v = -100dB) ■ Die im A779 vorgesehene Schnittstelle kann direkt von bestimmten Videoschnittplätzen angesteuert werden, z.B. SONY BVE 600, BVE 900 und BVE 9000. Für andere Anwendungen müssen entsprechende Spannungsgeber generiert werden.

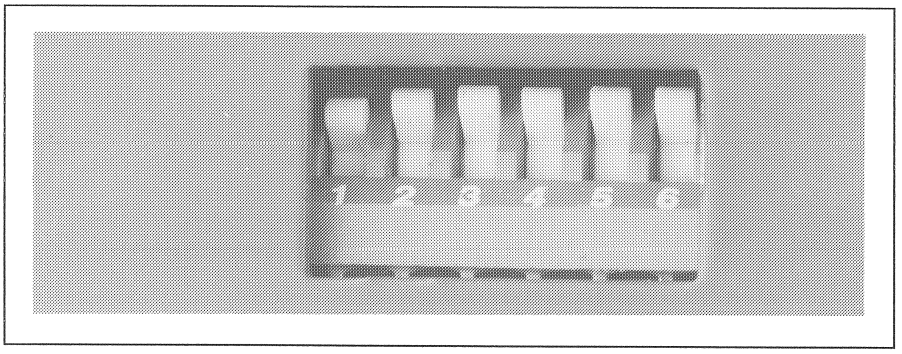
Belegung:
Pin 1 = Steuerspannung Eingang 1
Pin 2 = Steuerspannung Eingang 2
Pin 3 = Steuerspannung Eingang 3
Pin 4 = Steuerspannung Eingang 4
Pin 5 = Steuerspannung Eingang 5
Pin 6 = Steuerspannung Eingang 6
Pin 9 = 0 Volt

Anschluss	Funktion
[33] BUS EXPANSION	■ Erweiterungsanschluss für ein zweites A779 Mischpult. Die Master- und Slave-Funktion wird vom Verbindungskabel bestimmt. Die Stecker des Kabels sind entsprechend beschriftet.

Belegung:						
	Pin 1	=	MBR-IN	Pin 9	=	BC
	Pin 2	=	MBL-IN	Pin 10	=	0 Volt
	Pin 3	=	SB-IN	Pin 11	=	0 Volt
	Pin 4	=	PFL-IN	Pin 12	=	0 Volt
	Pin 5	=	MBR-OUT	Pin 13	=	0 Volt
	Pin 6	=	MBL-OUT	Pin 14	=	0 Volt
	Pin 7	=	SB-OUT	Pin 15	=	0 Volt (SCREEN)
	Pin 8	=	PFL-OUT			

Signalnamen: **MB** = Master Bus; **SB** = Send Bus; **PFL** = Pre Fader Listening; **BC** = Bus Controller; **L** = links; **R** = rechts;

[34] MASTER OUTPUT R/L	■ Symmetrisch erdfreier Stereo-Ausgang des Summenkanals (XLR).
[35] AUX RETURN R/L INPUT	■ Symmetrisch erdfreie Hilfseingänge auf die linke und rechte Summen-Sammelschiene (XLR).
[36] AUX SEND OUTPUT	■ Symmetrischer Ausgang der Hilfs-Sammelschiene (XLR, mono).
[37] TAPE 2 OUTPUT L/R	■ Asymmetrische Ausgänge (CINCH-Stecker). Das Signal des symmetrischen Hochpegeleingangs TAPE 2 [39] wird asymmetrisch auf diesen Ausgang geführt. Vorschalten an einen beliebigen, asymmetrischen Stereo-Eingang [ad] mit CINCH-Kabel.
[38] TAPE 1 OUTPUT L/R	■ Asymmetrische Ausgänge (CINCH-Stecker). Das Signal des symmetrischen Hochpegeleingangs TAPE 1 [40] wird asymmetrisch auf diesen Ausgang geführt. Vorschalten an einen beliebigen, asymmetrischen Stereo-Eingang [ad] mit CINCH-Kabel.
[39] TAPE 2 INPUT L/R	■ Symmetrischer Stereo-Hochpegeleingang.
[40] TAPE 1 INPUT L/R	■ Symmetrischer Stereo-Hochpegeleingang.
[41] MONITOR CUT	■ Über den 6-teiligen DIP-CODIER-SCHALTER kann für jeden Eingangskanal das Stummschalten des Monitorausgangs bestimmt werden. Zeigt ein Schalter nach unten, so wird beim Öffnen des entsprechenden Eingangs-faders der stereofone Abhörausgang [24] stummgeschaltet.



1.4 Technische Daten

1.4.1 Elektronische Daten

Allgemeines:

Messbedingungen:
Alle Spannungen in dBu beziehen sich auf 775 mV_{eff}. Alle Eingangs- und Summen-Flachbahnregler sind auf 0 dBu eingestellt, die Höhen- und Tiefenregler in Mittelstellung.

Pegel:

- Regelbereich für 0 dB Anzeige auf der Spitzenwertanzeige:

GAIN MIC:	-60	dBu ...	0	dBu
GAIN LINE, STEREO:	-20	dBu ...	+16	dBu
AUX RETURN:	-4	dBu ...	+22	dBu

- Ausgangspegel für 0 dB Anzeige auf der Spitzenwertanzeige:

PRE, AFTER FADER:	0	dBu
AUX SEND:	+6	dBu
MASTER unbal.:	0; +4; +8	dBu
MASTER bal.:	+6; +10; +14	dBu
(mit Schalter auf Rückwand einstellbar)		
MONITOR max.:	+16	dBu

- TAPE 1, 2 für 0 dB Anzeige auf der Spitzenwertanzeige:

Eingänge bal.:	+6	dBu
Ausgänge unbal.:	0	dBu

Übersteuerungsreserven:

- Maximaler Eingangspegel:

MIC:	0	dBu
LINE bal, STEREO:	+20	dBu
AUX RETURN, TAPE:	+26	dBu

- Maximaler Ausgangspegel:

Unbalanced:	+20	dBu
Balanced:	+24	dBu
Balanced Trafo:	+26	dBu

Impedanzen:

- Eingangsimpedanz:

MIC:	> 1.2	kOhm
LINE, STEREO:	47	kOhm
AUX RETURN, TAPE:	> 10	kOhm

- Ausgangsimpedanz:

MASTER bal., AUX SEND, MONITOR:	< 50	Ohm
MASTER unbal.:	< 1.0	kOhm
OUTPUT PF, AF:	< 50	Ohm

Frequenzgänge:

- Linear (Höhenregler, Tiefenregler in Mittelstellung)

20 Hz ... 20 kHz:	+1 ... −1	dB
Trittschallfilter 12 dB/Oktave, −3 dB:	70	Hz
Höhenregler 20 kHz:	+15 ... −15	dB
Tiefenregler 20 Hz:	+15 ... −15	dB

Fremdspannungsabstände:

- Effektivwerte 20 Hz ... 20 kHz

1x MIC bezogen auf −60 dBu Eingangsspannung, 200 Ω Abschluss:	> 63	dB
1x LINE bezogen auf 0 dBu Eingangsspannung, 1 kΩ Abschluss:	> 90	dB
6x LINE bezogen auf 0 dBu Eingangsspannung:	> 86	dB
Summenregler geschlossen:	> 100	dB

Klirrfaktor:

- LINE 0 dBu Eingang +6 dBu Summenausgang

1 kHz:	< 0.03	%
20 Hz ... 20 kHz:	< 0.15	%
MIC −20 dBu Eingang 1 kHz:	< 0.03	%
30 Hz ... 15 kHz:	< 0.15	%

Übersprechdämpfung:

- Links – Rechts Übersprechen eines

Stereo-Eingangs 10 kHz:	> 50	dB
Ausschaltdämpfung Kanalregler 10 kHz:	> 86	dB
Ausschaltdämpfung Summenregler 10 kHz:	> 100	dB

Anzeige:

- LED-Bargraph-Instrument mit PPM-Charakteristik (Peak Program Meter) für Quasi-Spitzenwert-Anzeige. Die LED arbeiten mit folgender Abstufung:

Bereiche: +6 ...	+1	dB	in 1 dB Schritten (rot)
0 ...	−6	dB	in 1 dB Schritten (grün)
−7 ...	−18	dB	in 2 dB Schritten (grün)
−19 ...	−33	dB	in 3 dB Schritten (grün)

- Charakteristik umschaltbar von PPM auf Anzeige des Korrelationsgrades eines Stereosignales (L−R, L+R).

- Pegelanzeige wählbar für:

PFL	(Mono)
AUX SEND	(Mono)
AUX RETURN	(Left, Right)
TAPE 2	(Left, Right)
TAPE 1	(Left, Right)
MASTER-Ausgang	(Left, Right)

Stromversorgung:

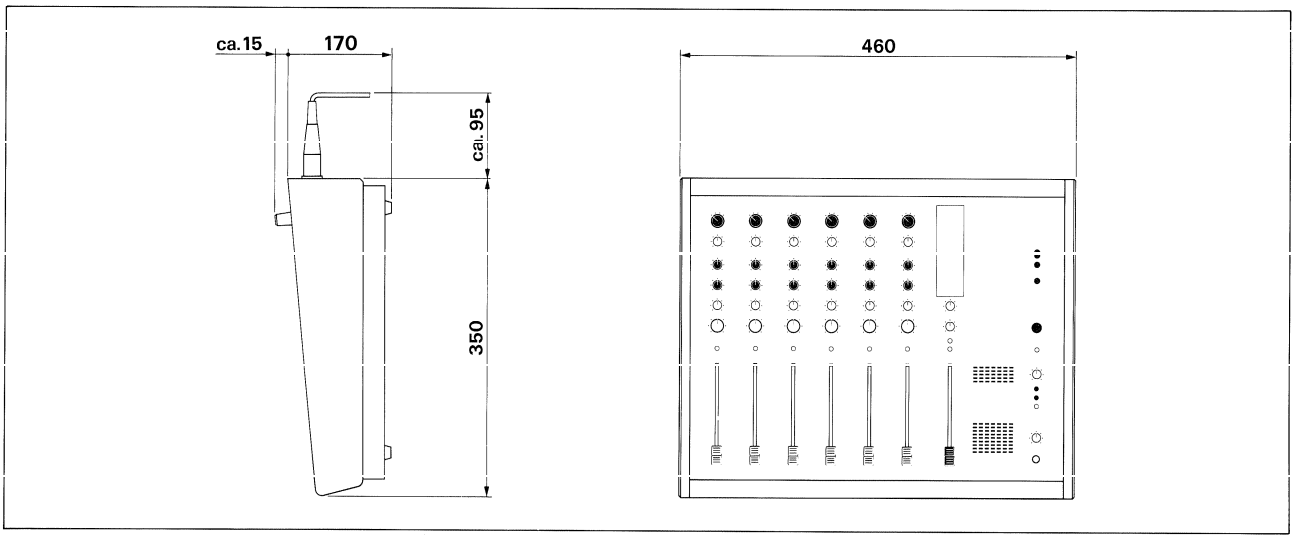
- Netzspannungen umschaltbar:
  100, 120, 140, 200, 220, 240 V
  50 ... 60 Hz, max. 50 Watt

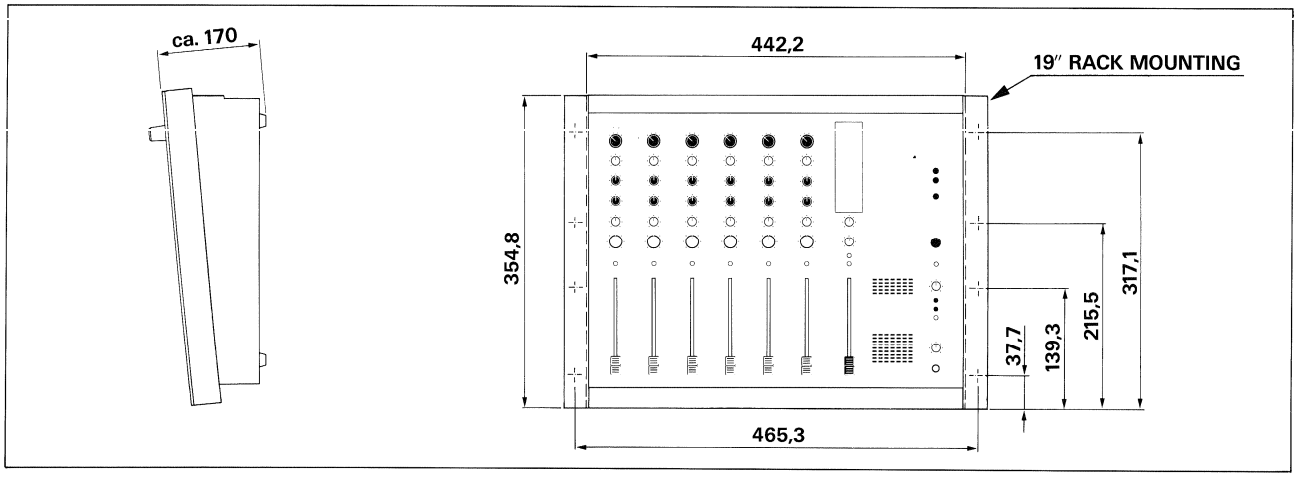
- Netzsicherung:
  100 ... 140 V : 630 mAT
  200 ... 240 V : 315 mAT

1.4.2 Mechanische Daten

Gewicht: MIXING CONSOLE A779: ca. 13 kg

Abmessungen: Breite × Tiefe × Höhe: 46cm × 35cm × 17cm





1.5 Zubehör

Im Lieferumfang des Gerätes sind ein Netzkabel und eine Bedienungs- und Serviceanleitung enthalten. Folgende Positionen sind als Zubehör lieferbar:

1.5.1 Zubehörset — Best.Nr. 1.775.031.00

Pos.	Stk.	Teil-Nr.	Bezeichnung
1.	12	54.02.0280	XLR Stecker (male)
2.	7	54.02.0281	XLR Stecker (female)
3.	7	54.24.0121	Mini-Jack, Stereo 3,5 mm (Faderstart)
4.	2	54.21.2080	Cinch - Cinch Kabel, 0,5 m
5.	2	1.911.000.34	Knopf schmal GELB
6.	2	1.911.000.35	Knopf schmal GRUEN
7.	2	1.911.000.36	Knopf schmal BLAU
8.	1	51.01.0112	Sicherung: T 315mA/250V
9.	2	51.01.0117	Sicherung: T 1A/250V

1.5.2 Montagesatz für 19"-Rack — Best.Nr. 1.775.361.00

Pos.	Stk.	Teil-Nr.	Bezeichnung
1.	3	21.26.0353	Z-Schraube, M3×5
2.	8	21.26.2454	S-Schraube, M4×6
3.	2	1.775.360.25	Rackwinkel
4.	1	1.775.360.24	Zierprofil unten

1.5.3 Bus-Verbindungskabel — Best.Nr. 1.023.767.00

Graues Verbindungskabel 85cm, 10-adrig, verdrahtet mit zwei 15-poligen D-Typ Steckern. Der eine Stecker schliesst ein A779 als Master an, der andere als Slave. Jedes A779 Mischpult kann für beide Zwecke verwendet werden.

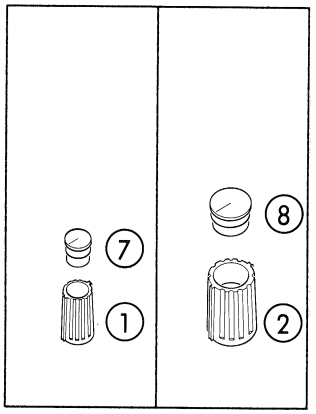
Kopplung zweier A779: Die Kopplung zweier A779 Mischpulte ergibt ein System mit 12 Eingangskanälen und einem Summenausgang. Vom Slave-Pult werden die Summen-, Aux- und PFL-Sammelschienen direkt (Masterregler werden umgangen) auf die Sammelschienen des Master-Pultes gespeist. Das BC-Signal (Bus Controller) schaltet die Sammelschienen-Signale auf den D-Typ-Stecker BUS EXPANSION.

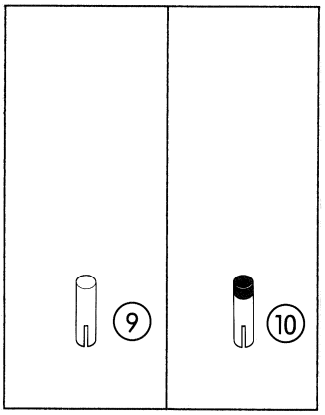
1.5.4 Transportkoffer — Best.Nr. 10.690.001.01

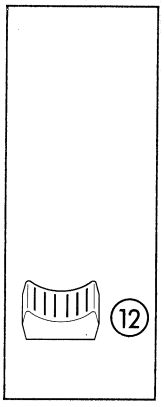
Äussere Abmessungen: Doppelschalen-Kunststoffkoffer mit Traggriff; schwarz; abschliessbar; 57cm × 45cm × 24cm

1.5.5 Drehknöpfe und Drucktasten

Ind.	ORDER NUMBER	PART NAME	COLOR
01	42.01.0203	knob fixed....ϕ10/4mm with screw	dark grey
	1.775.370.32	knob.....ϕ10/4mm	dark grey
02	1.775.370.31	knob.....ϕ15/4mm	dark grey
07	42.01.0250	Cap with line...ϕ10mm	light grey
	42.01.0251	.....	dark grey
	42.01.0252	.....	black
	42.01.0253	.....	red
	42.01.0254	.....	blue
	42.01.0255	.....	yellow
	42.01.0256	.....	green
08	42.01.0257	Cap with line...ϕ15mm	light grey
	42.01.0258	.....	dark grey
	42.01.0259	.....	black
	42.01.0260	.....	red
	42.01.0261	.....	blue
	42.01.0262	.....	yellow
	42.01.0263	.....	green
09	1.810.320.02	Push button.....	dark grey
	1.810.320.03	.....	blue
	1.810.320.04	.....	yellow
	1.810.320.05	.....	white
	1.810.320.06	.....	green
	1.810.320.07	.....	red
10	1.011.094.02	Push button with.....	red
	1.011.094.03	coloured top.....	orange
	1.011.094.04	.....	yellow
	1.011.094.05	.....	green
	1.011.094.06	.....	blue
	1.011.094.08	.....	light grey
	1.011.094.09	.....	dark grey
12	1.911.000.32	Fader knob.....	red
	1.911.000.33	.....	orange
	1.911.000.34	.....	yellow
	1.911.000.35	.....	green
	1.911.000.36	.....	blue
	1.911.000.38	.....	light grey
	1.911.000.39	.....	white







2 Inbetriebnahme

2.1 Gerät ans Netz anschliessen 1

2.2 Gerät einschalten 1

2.3 Mikrofon Phantomspeisung 1

2.4 Eingänge anschliessen 2

2.5 Ausgänge anschliessen 2

2 Inbetriebnahme

2.1 Gerät ans Netz anschliessen

Achten Sie auf Übereinstimmung der örtlichen Netzspannung mit dem aufgedruckten Wert beim Geräte-Netzanschluss. Im abweichenden Fall ist das Spannungskarussell entsprechend einzustellen. Der Wert der Primärsicherung muss anschliessend kontrolliert werden: (vgl. Abschnitt 4.3.11)

- ❑ 100...140 V_{AC}: **T 630 mA L 250 V (slow blow)**
  USA und CDN (100...140 V_{AC}): ***630 mA slow blow UL/CSA***
- ❑ 200 ...240V_{AC}: **T 315 mA L 250 V (slow blow)**

2.2 Gerät einschalten

Durch Drücken des Netzschalters [u] wird das Gerät eingeschaltet, die Programm-Spitzenwertanzeige leuchtet. Erneutes Drücken der Taste schaltet das Gerät wieder aus und trennt es vom Netz.

2.3 Mikrofon-Phantomspeisung

Kondensator-Mikrofone: Kondensator-Mikrofone benötigen eine Versorgungsspannung von 48 V_{DC}, welche vom Mischpult zur Verfügung gestellt wird. Schiebeschalter PHANTOM POWER 48 V [15] in Stellung ON, für alle Eingangs-Einheiten ist die Mikrofon-Phantomspeisung eingeschaltet.

Dynamische Mikrofone: Dynamische Mikrofone benötigen keine zusätzliche Speisung und werden einfach an den Mikrofoneingängen angeschlossen. Schiebeschalter PHANTOM POWER 48 V [15] in Stellung OFF.

Hinweis: Werden bei einer Aufnahme dynamische Mikrofone und Kondensator-Mikrofone gleichzeitig verwendet, *so müssen alle Mikrofone symmetrisch angeschlossen werden.* Der Schiebeschalter PHANTOM POWER 48 V [15] ist in die Stellung ON zu bringen.
Bei asymmetrischem Anschluss und eingeschalteter Phantomspeisung werden die Eingangsübertrager magnetisiert, was zu erhöhtem Klirrfaktor führt. Für eine Entmagnetisierung beachten Sie bitte die entsprechenden Hinweise im Kapitel 5.1.1.

2.4 Eingänge anschliessen

Mikrofone:
- ❑ sind an den symmetrischen Eingängen MIC BAL. [ab] der Stereo-Eingangs-Einheiten 1 [23] bis 6 [18] anschliessbar.
- ❑ Die Eingangswahlschalter [a] sind entsprechend in die Stellung MIC NORMAL oder MIC BASS CUT zu bringen.

Hochpegel-Signalquellen:
- ❑ Mono-Signalquellen mit symm. Hochpegelausgang (50 mV_{RMS}...3 V_{RMS}) sind am Eingang LINE BAL. [ac] der Stereo-Eingangs-Einheit anschliessbar.
- ❑ Die Eingangswahlschalter [a] sind entsprechend in die Stellung LINE MONO BAL. zu bringen.
- ❑ Stereo-Signalquellen mit symmetrischem Hochpegelausgang (50 mV_{RMS} bis 3 V_{RMS}) sind an den Eingängen TAPE 1 [40] und TAPE 2 [39] der Ein-/Ausgangs-Einheit anschliessbar. Mit CINCH-CINCH-Verbindungskabeln werden sie am asymmetrischen Ausgang TAPE 1 [38] oder TAPE 2 [37] abgegriffen und einem beliebigen Stereo-Eingang [18] ... [23] [ad] zugeschaltet.

Stereo-HiFi-Signalquellen:
- ❑ Asymmetrische Stereo-Signalquellen (z.B. HiFi-Geräte) sind an den Stereo-Eingängen [ad] der Stereo-Eingangs-Einheiten anschliessbar. Die Eingangswahlschalter [a] sind entsprechend in die Stellung STEREO UNBAL. zu bringen.

Vorsicht: **An derselben Eingangs-Einheit dürfen nie beide LINE-Eingänge (MONO BAL. und STEREO UNBAL.) gleichzeitig mit Signalquellen verbunden sein!**

2.5 Ausgänge anschliessen

Symmetrische Ausgänge:

Master Ausgang Geräte mit symmetrischen Eingängen sind an den Steckern MASTER OUTPUT BAL. L/R [16] [34] anschliessbar.

Monitor Ausgang Ein Abhörverstärker oder - noch einfacher - ein Paar aktiver Studio-Monitore (z.B. die aktiven Studio-Schallwandler STUDER A523, A623, A723 oder A823) kann direkt an den Ausgang MONITOR OUTPUT [24] angeschlossen werden.

Asymmetrische Ausgänge: Geräte mit asymmetrischen Eingängen sind an den Steckern MASTER UNBAL. L/R [17] anschliessbar. Auch die Direktausgänge PRE/AFTER FADER [ae]/[af] sind auf asymmetrische Anschlüsse geführt.

3 Funktionsbeschreibung

3.1 Netzteil 1

3.2 Anzeige-Einheit 1

3.3 Eingangs-Einheit 2

3.4 Summen-Einheit 3

3.5 Abhör-Einheit 3

3.6 Ein-/Ausgangs-Einheit 4

3.7 Kontroll-Abhör-Einheit 5

3 Funktionsbeschreibung

3.1 Netzteil 1.775.490

- Primäre Schaltkreise:
  Ein Pol der Netzspannung gelangt direkt zum Netztransformator. Der andere Pol wird zum Netzschalter (auf der Abhör-Platine) und über die Primär-Sicherung zum Netzspannungswähler und Transformator geführt.

- Wählbare Netzspannungen sind:
  100 V, 120 V, 140 V, 200 V, 220 V und 240 V, ±10 %, 50 ... 60 Hz.

- Sekundäre Schaltkreise:
  Folgende Spannungen stehen zur Verfügung:
  ±15 V Verstärkerspeisung
  +11 V LED-Speisung der Anzeige-Platine
  +48 V Mikrofon-Phantomspeisung
  Die Verstärkerspeisung (±15 V) wird mit zwei Seriereglern stabilisiert. Die Ausgangsspannung dieser Regler wird mit Trimmpotentiometern eingestellt.
  Der Längstransistor der Phantomspeisung (+48 V) sorgt nebst der Spannungsstabilisierung auch für das Ein- und Ausschalten der Spannung. Die Ausgangsspannung kann mit einem Trimmpotentiometer verändert werden.
  Die Speisung der LED-Anzeigen (+11 V) wird nur durch einen Elektrolyt-Kondensator gesiebt und bleibt ungeregelt.

3.2 Anzeige-Einheit 1.775.310

PPM:

- Stereo Peak Program Meter mit je 24 LED's und automatischer Helligkeitsregelung.

Bereiche:	+1 ...	+6	dB	in 1 dB Schritten (rot)
	-6 ...	0	dB	in 1 dB Schritten (grün)
	-18 ...	-7	dB	in 2 dB Schritten (grün)
	-33 ...	-19	dB	in 3 dB Schritten (grün)

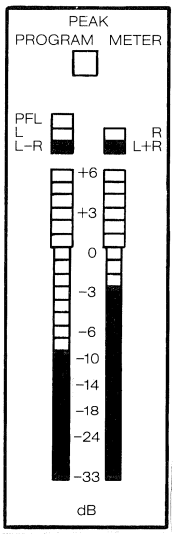
- Das Stereo-Peakmeter zeigt den Pegel der angewählten Abhörquelle an. MASTER, TAPE 1, TAPE 2, AUX RETURN werden in Stereo, PFL und AUX SEND in Mono angezeigt. Die Betriebsart wird automatisch umgeschaltet.

- Anzeige der Betriebsart:

MONO	PFL	(rote LED)
STEREO	L,R	(rote LED's)
Korrelation	L-R, L+R	(rote LED's)

Korrelator:

Wird die Taste DISPLAY MODE [v] gedrückt, so zeigt das linke Instrument das Stereoseitensignal (L–R) an, das rechte das Stereomittensignal (L+R). Durch Vergleich beider Anzeigen kann eine Abschätzung des Korrelationsgrades und damit der Monokompatibilität erfolgen. Der Korrelationsgrad zeigt die Gleichartigkeit der beiden Stereokanäle an.



Korrelation	Anzeige	Interpretation
+1	L << R	Die beiden Kanäle (L, R) sind gleich: Räumliche Abbildung in der Mitte (Mono).
0,3...0,7	L < R	Durchschnittliche Stereoprogramme; Anzeige links 6 ...8 dB kleiner als rechts.
0	L = R	Stereosignal mit 90° Phasenverschiebung oder inkohärente Signale.
< 0	L > R	Signale mit Phasenumkehrungen, nicht monokompatibel.
-1	L >> R	Die beiden Kanäle sind gleich aber mit 180° Phasendrehung.

Ein durchschnittliches Stereoprogramm ergibt einen Korrelationsgrad von ca. 0,3 ...0,7. Aufnahmen mit starken Mittensignalen (Solisten) erreichen noch höhere Werte. Eine ausgeprägte Verteilung der Instrumente auf die ganze Basisbreite dagegen senkt die Korrelation gegen Null.
Negative Werte (Anzeige links höher als rechts) weisen auf Phasenumkehrungen im System hin.

3.3 Eingangs-Einheit 1.775.420

- Der asymmetrische Stereo-Eingang wird mit den symmetrischen Eingängen MIC und LINE BAL. auf den Eingangswahlschalter geführt. (Jegliche Schalter in diesem Gerät sind elektronisch realisiert).
- Das Trittschallfilter (BASS CUT) kann dem Mikrofoneingang zugeschaltet werden. Die Eingangspegelregler haben einen Bereich von -20 ...+16 dB. Für den Mikrofoneingang sind die Pegelregler hintereinander geschaltet. Daraus ergibt sich ein Regelbereich von -36 ... +36 dB. Über die Klangreglung gelangt das Signal zu den VCA's, die mittels Flachbahnregler über den Buffer ausgesteuert werden. Der Regelbereich eines VCA beträgt -70 ... +10 dB.
- Um einen guten Gleichlauf der Stereo-Flachbahnregler zu erreichen, sind die entsprechenden Stellglieder mit dbx-VCA realisiert. Der Flachbahnregler besteht aus einem linearen Schiebepotentiometer, welches eine DC-Spannung an den VCA liefert. Die Konversion linear ÷ dB-linear besorgt der VCA. Den Abschluss der Eingangsschaltung bildet das Panorama- bzw. Balancepotentiometer (STEREO UNBAL.). Bei Mono-Betrieb werden die Eingangsschaltungen beider Kanäle zur Bildung eines symmetrischen Eingangs herangezogen, die weitere Verarbeitung erfolgt dann im linken Kanal.
  Die Signale PF (Abgriff vor dem Regler) oder AF (Abgriff nach dem Regler) werden über die Summierverstärker auf die 0 dB-Trennverstärker am Ausgang geführt. Das über den AUX-Schalter geschaltete Signal wird durch den AUX-Regler im Pegel verändert und der AUX-Sammelschiene zugeführt. Das Vorabhörsignal wird vor dem Flachbahnregler über den PFL-Schalter auf die PFL-Sammelschiene geschaltet.

3.4 Summen-Einheit 1.775.430

AUX SEND

Um ein externes Gerät einschlaufen zu können, ist auf der Summen-Einheit ein zusätzlicher Ein-/Ausgang (AUX SEND, AUX RETURN) realisiert. Von der Hilfs-Sammelschiene über den Summierverstärker gelangt das SEND-Signal zum Potentiometer [k], mit welchem der Ausgangspegel eingestellt wird. Zugleich besteht die Möglichkeit das SEND-Signal vom Pegelregler auf den Abhörausgang zu schalten (AUX-SEND, Taste [o]).

AUX RETURN

Das stereofone RETURN-Signal wird über das Potentiometer [l] auf die Summen-Sammelschiene geführt. Auch hier ist es möglich mit der AUX-RETURN-Taste [p] das Signal auf den Abhörausgang zu schalten.

MASTER Fader

Die Summierverstärker bilden den Abschluss der Summen-Sammelschiene. Die Regelung des Summensignals erfolgt ebenfalls durch VCA-Stufen, die gleich realisiert sind wie bei der Eingangseinheit.

Ausgänge

Das Mischpult ist mit zwei asymmetrischen (2×Master, Stereo) und vier symmetrischen Ausgängen ausgestattet (2×Master, Stereo; 1×Monitor, Stereo; 1×AUX Send, Mono). Der stereofone Summenausgang [16] ist elektronisch symmetriert, während Ausgang [34] mit Trafos erdfrei realisiert wurde. Der Ausgangspegel dieser Ausgänge wird mit dem Schiebeschalter [14] eingestellt:

- BALANCED: +6 dBu/+10 dBu/+14 dBu
- UNBALANCED: 0 dBu/+4 dBu/+8 dBu

3.5 Abhör-Einheit 1.775.450

Talk Back

Mit dem eingebauten Mikrofon [11] können Informationen direkt auf die Summen- oder Hilfs-Sammelschiene gesprochen werden. Nach den Verstärkern kann der Ausgangspegel mit dem Lautstärke-Potentiometer [w] beeinflusst werden. Für eine Durchsage auf die Summen-Sammelschiene sind beide TALK BACK-Tasten SLATE zu drücken. Wird nur eine Taste betätigt, so erfolgt keine Durchschaltung. Für eine Durchsage auf die Hilfs-Sammelschiene ist die TALK BACK-Taste AUX zu drücken.

Abhörquelle

Mit den Tasten [n] ...[s] erfolgt die Wahl der Abhörquelle. Sie gilt sowohl für den eingebauten Monitorlautsprecher wie auch für den Monitorausgang [24]. Auf das Summensignal haben diese Tasten keinerlei Einfluss.

Interner Monitor

Die rechte und linke Abhör-Sammelschiene sind über Summierverstärker und Umkehrstufen Stereo auf die Kopfhörerbuchse [aa] und Mono auf den Lautsprecher [10] geschaltet. Mit dem Potentiometer [z] kann die Abhörlautstärke verändert werden. Beim Anschluss eines Kopfhörers wird der eingebaute Lautsprecher ausgeschaltet.

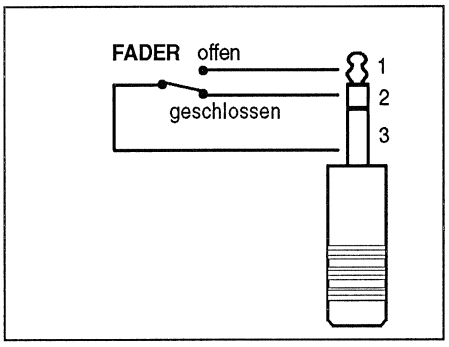
Monitor-Ausgang

Die Abhör-Sammelschiene führt nach den Summierverstärkern über den Lautstärkeregler [t] auf den Abhörausgang [24]. Zu beachten ist, dass die Funktion MONITOR CUT beim Öffnen eines Eingangsfaders den Monitorausgang stummschaltet. Diese Funktion ist am DIP-Schalter [41] für jeden Kanal einzeln einstellbar (vgl. Seite D 1/6).

3.6 Ein-/Ausgangs-Einheit 1.775.460

Faderstart

- Die Flachbahnregler-Startlogik ist bei Eingangs- und Summen-Einheiten identisch.
- Der Flachbahnregler in den einzelnen Eingangskanälen oder in der Summeneinheit erzeugt die VCA-Steuerspannung zwischen 0 und +5 V. Diese Spannung wird auch zur Steuerung der Flachbahnregler-Startlogik benutzt. Sie wird in IC 9 sehr hoch verstärkt (Faktor 1000); daher genügt schon eine geringe Spannung vom Flachbahnregler (kleiner Oeffnungsweg) um am Ausgang von IC 9 die für die Startlogik erforderliche Spannung zu erzeugen. Ein weiteres Anwachsen wir dann durch die Diode D 5 begrenzt.
- Bei geöffnetem Flachbahnregler zieht das Startrelais daher an, bei geschlossenem fällt es ab.
- Die Kontakte der FADER START Klinkenbuchsen (3,5 mm, stereo) werden durch Relais gemäss untenstehender Figur geschaltet. Der gemeinsame Kontakt '3' ist von der Mischpultmasse galvanisch getrennt.



Entsprechender Flachbahnregler **geöffnet**:
- Kontakt **1** an Kontakt 3
- Kontakt **2** frei
- Kontakt **3** Wechselkontakt (Wurzel)

Entsprechender Regler **geschlossen**:
- Kontakt **1** frei
- Kontakt **2** an Kontakt 3
- Kontakt **3** Wechselkontakt (Wurzel)

INPUT Tape 1 + 2

- An den Stereo-Eingängen TAPE 1 oder TAPE 2 (XLR Buchsen, symmetrisch) kann ein symmetrisches Hochpegelsignal direkt angeschlossen werden.
- Die beiden Tape-Eingänge haben reine Monitorfunktion. Sie können nicht auf das Summensignal einspeisen. Durch Drücken der Tasten [q] oder [r] der Kontroll-Abhör-Einheit kann das Tape-Signal direkt der Abhör-Sammelschiene aufgeschaltet und abgehört werden.

OUTPUT Tape 1 + 2

- Die Signale der symmetrischen Tape-Eingänge stehen an den Ausgängen TAPE 1 und TAPE 2 asymmetriert zur Verfügung. Von hier können sie über CINCH-CINCH Verbindungskabel einem beliebigen asymmetrischen Eingang (STEREO) zugeführt werden.

Die Ein- und Ausgänge TAPE 1 + 2 können universell als Übertrager für den Anschluss symmetrischer Hochpegelquellen an asymmetrische HiFi-Geräte eingesetzt werden.

Kopplung zweier A779

- Um zwei Pulte A779 miteinander zu koppeln, werden die Buchsen BUS EXPANSION [33] miteinander verbunden. Die Lage der beschrifteten Stecker am Verbindungskabel legt dabei fest, welches Pult Master oder Slave ist. Vom Slave-Pult werden die Sammelschienen Master, AUX und PFL unter Umgehung der Masterregler direkt auf die entsprechenden Busse des Masterpultes geführt. Die Funktion Monitor-Cut des Slave-Pultes ist nicht nutzbar.

VCA-Option

- Dieses Mischpult ist als Option für eine externe VCA-Steuerung vorbereitet, beispielsweise zum Anschluss an den Video-Schnittplatz BVE 900. Dazu sind die D-Typ Buchse VCA-CONTROL [32] und ein Interface-Print (1.775.480.00) eingebaut.

3.7 Kontroll-Abhör-Einheit 1.775.470

Über die Tasten [n] ...[s] kann jeweils eine Signalquelle auf die Abhör-Sammelschiene geschaltet werden. Wird PFL gewählt, muss zusätzlich mindestens eine PFL-Taste eines Eingangs gedrückt sein. Es bestehen folgende Abhörmöglichkeiten: PFL, AUX Send, AUX Return, TAPE 1, TAPE 2, MASTER.
Das Potentiometer VOLUME [t] regelt den Pegel des Monitor-Ausganges. Abhörlautsprecher und Kopfhörer werden mit dem Regler PHONES [z] eingestellt.

4 Demontageanleitung

4.1 Allgemeine Hinweise 1
4.1.1 Benötigtes Werkzeug 1
4.1.2 Zusammenbau 1

4.2 Gehäuse 2
4.2.1 Ein-/Ausgangs-Einheit vom Mischpult trennen 2
4.2.2 Unteres Deckblech 2
4.2.3 Seitenblenden 2
4.2.4 Gehäuse-Rückwand (Anschlussfeld) 2

4.3 Elektronische Baugruppen 4
4.3.1 Ein-/Ausgangs-Platine 4
4.3.2 Netzteil 4
4.3.3 Eingangs-Platine 4
4.3.4 Summen-Platine 6
4.3.5 Mikrofon-Platine 6
4.3.6 Kontroll-Abhör-Platine 6
4.3.7 Abhör-Platine und Lautsprecher 6
4.3.8 Anzeige-Einheit 8
4.3.9 Netztransformator 8
4.3.10 Anschluss-Platine 8
4.3.11 Primär-Sicherung 8
4.3.12 Sekundär-Sicherungen 8

4 Demontageanleitung

4.1 Allgemeine Hinweise

Achtung: Vor dem Entfernen von Gehäuseteilen und elektronischen Baugruppen muss das Gerät vom Netzanschluss getrennt werden!

Hinweis: Bei Aus- und Einbauarbeiten elektronischer Komponenten sind die eingangs dieser Serviceanleitung aufgeführten Richtlinien zur Behandlung von MOS-Bauteilen zu beachten.

4.1.1 Benötigtes Werkzeug

- ❑ 1 Kreuzschlitz-Schraubendreher, Grösse 1
- ❑ 1 Kreuzschlitz-Schraubendreher, Grösse 2
- ❑ 1 Kreuzschlitz-Schraubendreher „Pozidriv", Grösse 1
- ❑ 1 Kreuzschlitz-Schraubendreher „Pozidriv", Grösse 2
- ❑ 1 Schraubendreher, Grösse 00
- ❑ 1 Pinzette,
- ❑ 1 Flachzange,
- ❑ 1 ESE-Arbeitsplatzausrüstung, Best.Nr.: **20.020.001.44**

Empfehlung: Den Arbeitsplatz so vorbereiten, dass Beschädigungen und Kratzspuren am Gerät vermieden werden.

4.1.2 Zusammenbau

Der Zusammenbau erfolgt sinngemäss in umgekehrter Reihenfolge der nachstehend beschriebenen Ausbau-Anleitungen, unter Beachtung der angeführten Montagehinweise.

4.2 Gehäuse

4.2.1 Ein-/Ausgangs-Einheit vom Mischpult trennen

- Die vier Befestigungsschrauben Fig. 1 [1] lösen.
- Die Ein-/Ausgangs-Einheit an der Anschlusseite leicht anheben und die drei (bei optionaler VCA Control: vier) Verbindungskabel ausstecken.
- Die Einheit nach hinten wegziehen.

4.2.2 Unteres Deckblech

- An der Gehäuse-Unterseite die 3 Schrauben Fig. 2 [2] lösen und das Deckblech entfernen.

4.2.3 Seitenblenden

- Je 2 Schrauben Fig. 3 [3] lösen.

4.2.4 Gehäuse-Rückwand (Anschlussfeld)

- Obere Zierleiste Fig. 3 [4] entfernen (3 Schrauben [5]).
- Ein-/Ausgangs-Einheit vom Mischpult trennen (Abschnitt 4.2.1).
- Unteres Deckblech entfernen (Abschnitt 4.2.2).
- Seitenblenden entfernen (Abschnitt 4.2.3).
- Netzteil entfernen (Abschnitt 4.3.2).
- Steckverbindungen lösen:
  6 Verbindungen Eingangs-Platine → Anschluss-Platine
  1 Verbindung Summen-Platine → Anschluss-Platine
  1 Verbindung Abhör-Platine → Anschluss-Platine
  1 Verbindung Anzeige-Platine → Anschluss-Platine
- An der Gehäuse-Rückwand 6 Schrauben Fig. 3 [6] entfernen.
- Die Gehäuse-Rückwand kann zusammen mit der Anschluss-Platine vorsichtig entfernt werden.

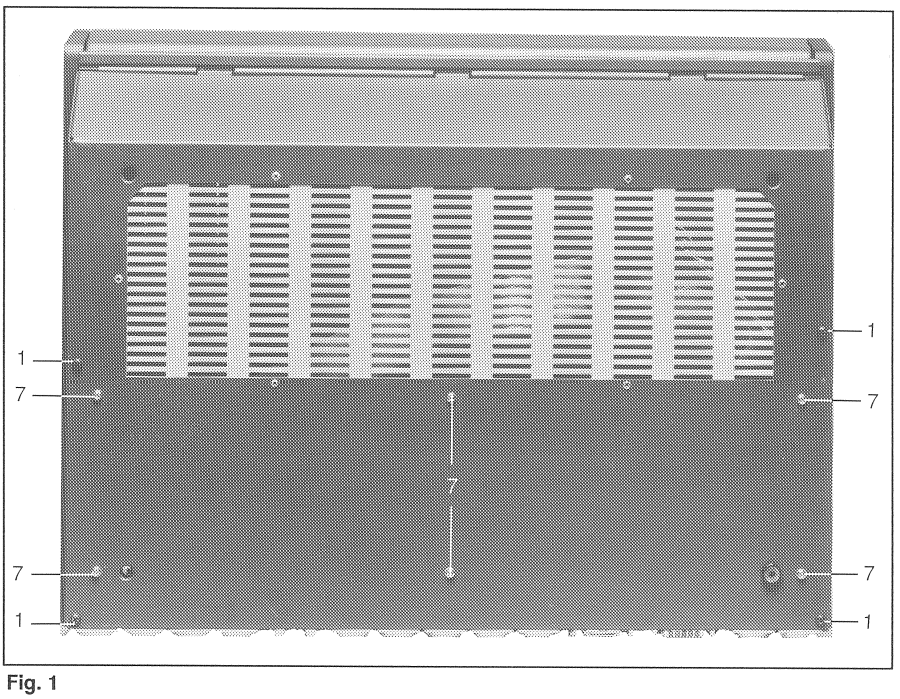


Fig. 1

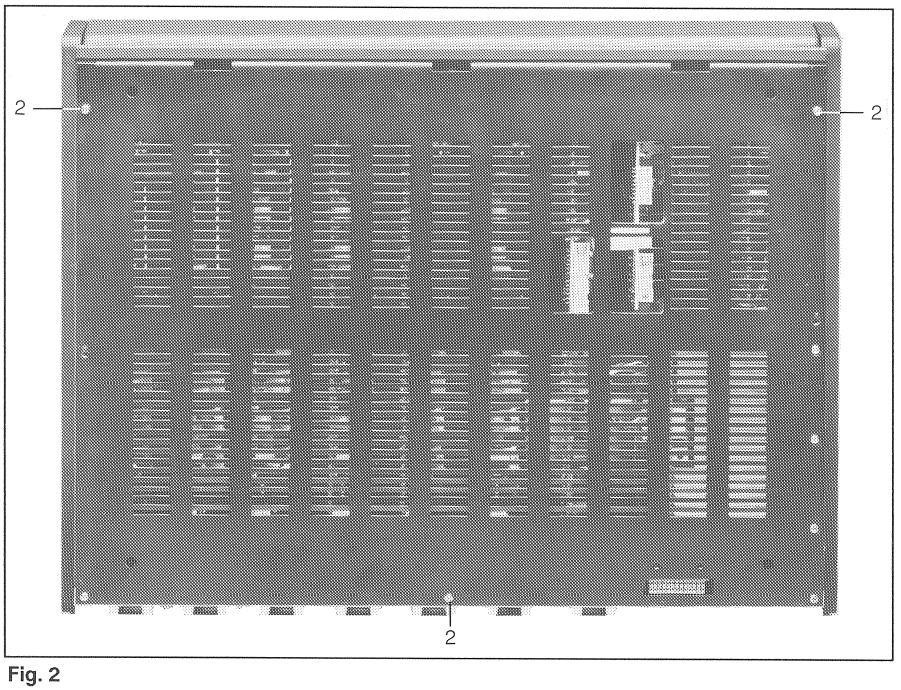


Fig. 2

4.3 Elektronische Baugruppen

4.3.1 Ein-/Ausgangs-Platine 1.775.460

- Ein-/Ausgangs-Einheit vom Mischpult trennen (Abschnitt 4.2.1).
- 6 Schrauben Fig. 1 [7] entfernen.
- Mit einem Schraubendreher Grösse 00 die Gehäuse der XLR-Stecker und -Buchsen lösen. (Schraubendreher beim vierten Loch einstecken und die Verriegelung durch eine leichte Linksdrehung lösen).
- Die zwei Schrauben Fig. 4 [8] pro XLR-Buchse leicht lösen.
- Die Schraube Fig. 4 [9] entfernen.
- Die Ein-/Ausgangs-Platine vorsichtig nach hinten aus dem Gehäuse ziehen.

4.3.2 Netzteil 1.775.490

- Ein-/Ausgangs-Einheit vom Mischpult trennen (Abschnitt 4.2.1).
- Unteres Deckblech entfernen (Abschnitt 4.2.2).
- Steckverbindungen lösen:
  1 Verbindung Netzteil --> Anzeige-Platine
  1 Verbindung Abhör-Platine --> Anschluss-Platine
  1 Verbindung Netzteil --> Netztransformator
- 3 Schrauben Fig. 5 [10] lösen.
- Netzteil vorsichtig aus der Anschluss-Platine ausziehen.

4.3.3 Eingangs-Platine 1.775.420

- Bedienungsknöpfe der auszubauenden Einheit entfernen. Der Knopf AUX kann nicht wie die anderen Knöpfe einfach abgezogen werden, er muss vorher, nach Entfernen des gelben Deckels, mit einem Schraubendreher gelöst werden.
- Ein-/Ausgangs-Einheit vom Mischpult trennen (Abschnitt 4.2.1).
- Unteres Deckblech entfernen (Abschnitt 4.2.2).
- Steckverbindungen lösen:
  1 Verbindung Eingangs-Platine --> Anschluss-Platine
  1 oder 2 Verbindungen Eingangs-Platine --> Eingangs- oder Summen-Platine
- 3 Schrauben Fig. 5 [11] lösen.

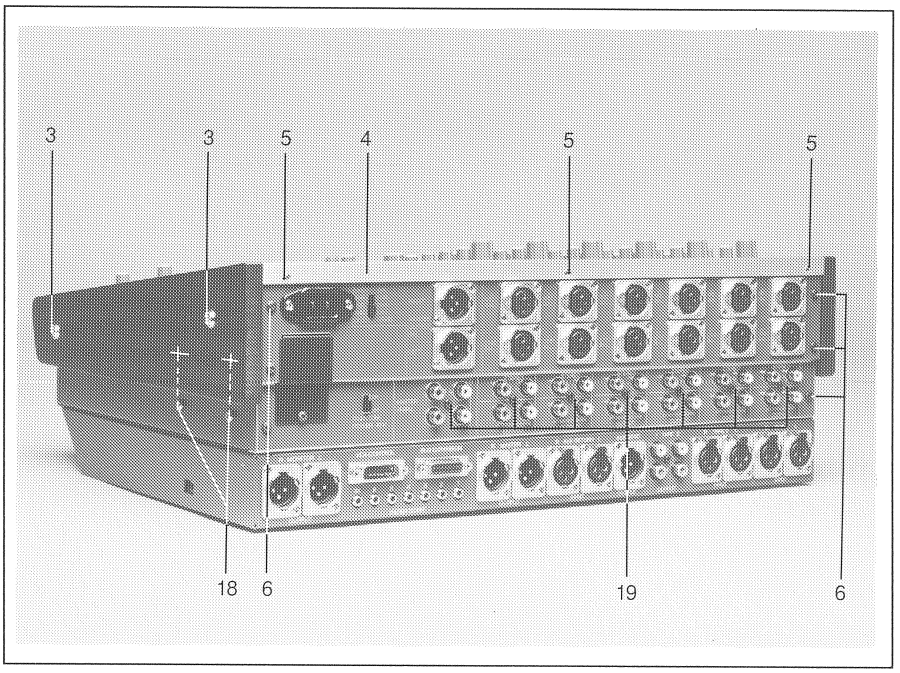


Fig. 3

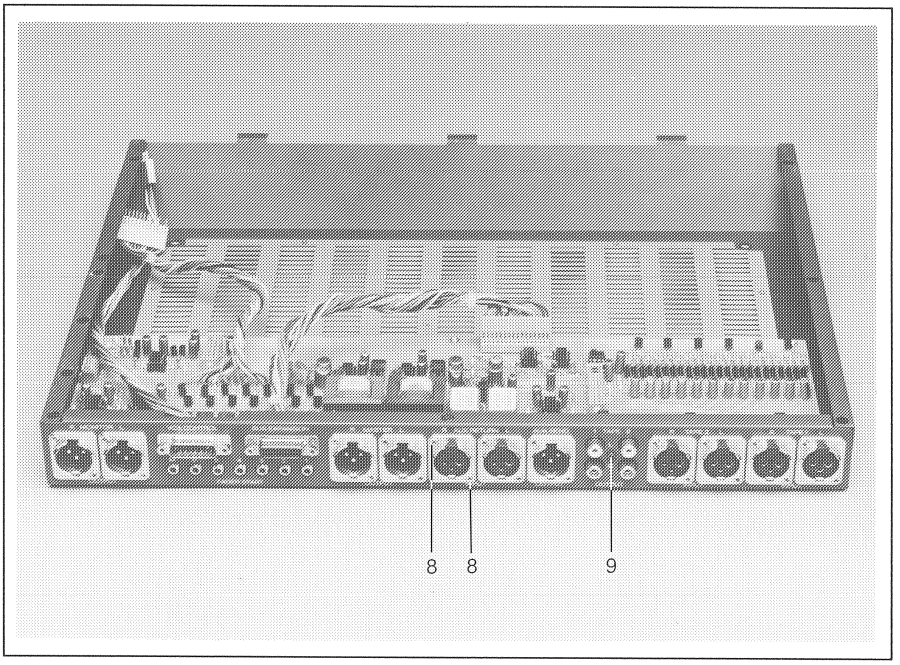


Fig. 4

4.3.4 Summen-Platine 1.775.430

- Bedienungsknöpfe der Summen-Einheit entfernen. Sie können einfach abgezogen werden.
- Ein-/Ausgangs-Einheit vom Mischpult trennen (Abschnitt 4.2.1).
- Unteres Deckblech entfernen (Abschnitt 4.2.2).
- Steckverbindungen lösen
  1 Verbindung Summen-Platine --> Anschluss-Platine
  1 Verbindung Summen-Platine --> Eingangs-Platine
  1 Verbindung Summen-Platine --> Abhör-Platine
  1 Verbindung Summen-Platine --> Kontroll-Abhör-Platine
- 2 Schrauben Fig. 5 [12] lösen.

4.3.5 Mikrofon-Platine 1.775.440

- Ein-/Ausgangs-Einheit vom Mischpult trennen (Abschnitt 4.2.1).
- Unteres Deckblech entfernen (Abschnitt 4.2.2).
- 1 Schraube Fig. 5 [13] lösen.
- Mikrofon-Platine vorsichtig aus der Abhör-Einheit ziehen.

4.3.6 Kontroll-Abhör-Platine 1.775.470

- Lautstärkeknopf [t] abziehen.
- Ein-/Ausgangs-Einheit vom Mischpult trennen (Abschnitt 4.2.1).
- Unteres Deckblech entfernen (Abschnitt 4.2.2).
- Steckverbindungen lösen:
  1 Verbindung Kontroll-Abhör-Platine --> Summen-Platine
  (Zusätzlicher Stecker, wenn optionale VCA Control eingebaut ist).
- 2 Schrauben Fig. 5 [14] lösen.

4.3.7 Abhör-Platine 1.775.450 und Lautsprecher

- Bedienungsknöpfe der Abhör-Einheit entfernen. Sie können einfach abgezogen werden.
- Ein-/Ausgangs-Einheit vom Mischpult trennen (Abschnitt 4.2.1).
- Unteres Deckblech entfernen (Abschnitt 4.2.2).
- Netzteil entfernen (Abschnitt 4.3.2).
- Mikrofon-Platine entfernen (Abschnitt 4.3.5).
- Steckverbindungen lösen:
  1 Verbindung Abhör-Platine --> Summen-Platine
  1 Verbindung Abhör-Platine --> Anschluss-Platine
  1 Verbindung Abhör-Platine --> Netztransformator
- 2 Schrauben Fig. 5 [15],Fig. 6 [15] lösen.
- Am Lautsprecher die 3 Schrauben Fig. 6 [16] lösen und die Klemmhülsen von den Mutterbolzen entfernen.
- Abhör-Platine zusammen mit Lautsprecher entfernen.

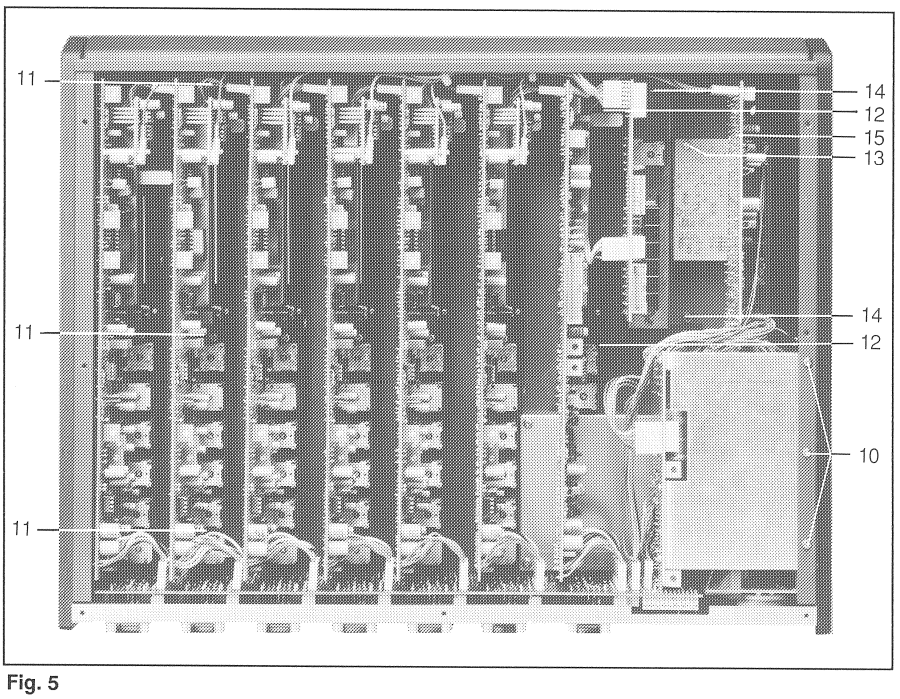


Fig. 5

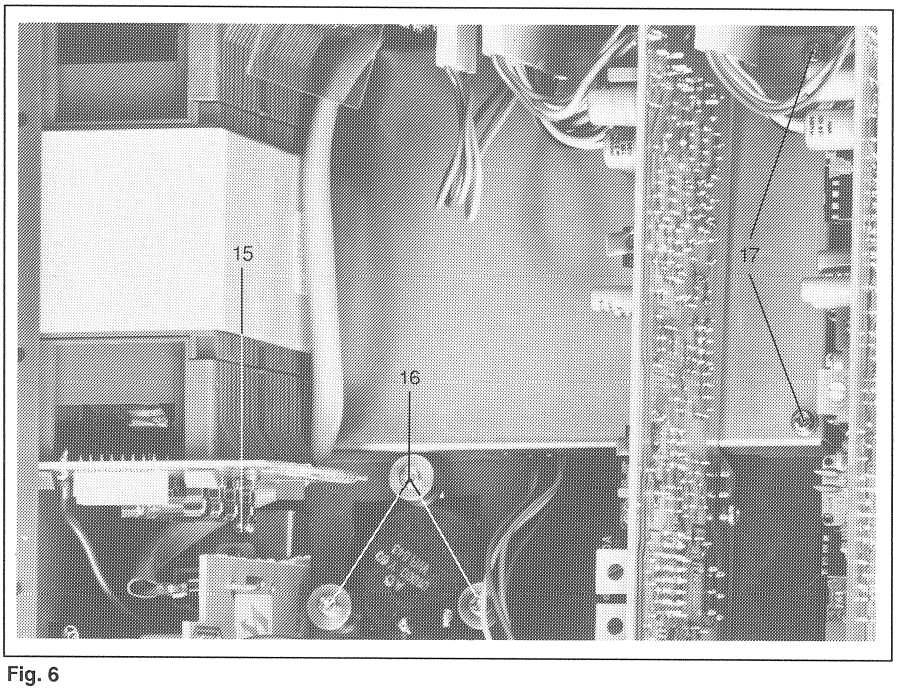


Fig. 6

4.3.8 Anzeige-Einheit 1.775.310

- ❑ Ein-/Ausgangs-Einheit vom Mischpult trennen (Abschnitt 4.2.1).
- ❑ Unteres Deckblech entfernen (Abschnitt 4.2.2).
- ❑ NETZTEIL entfernen (Abschnitt 4.3.2).
- ❑ Summen-Platine entfernen (Abschnitt 4.3.4).
- ❑ Netztransformator entfernen (Abschnitt 4.3.9).
- ❑ 2 Schrauben Fig. 6 [17] lösen. Abschirmblech und Anzeige-Einheit können entfernt werden.

4.3.9 Netztransformator

- ❑ Ein-/Ausgangs-Einheit vom Mischpult trennen (Abschnitt 4.2.1).
- ❑ Unteres Deckblech entfernen (Abschnitt 4.2.2).
- ❑ NETZTEIL entfernen (Abschnitt 4.3.2).
- ❑ Rechte Seitenblende entfernen (Abschnitt 4.2.3).
- ❑ Deckel zum Netzspannungswähler öffnen.
- ❑ Steckverbindungen lösen:
  2 Verbindungen: Netztransformator → Gerätestecker
  2 Verbindungen: Netztransformator → ABHÖR-PLATINE
- ❑ 4 Schrauben Fig. 3 [18] lösen (Zwei der Schrauben unter der Seitenblende).

4.3.10 Anschluss-Platine 1.775.410

- ❑ Ein-/Ausgans-Einheit vom Mischpult trennen (Abschnitt 4.2.1).
- ❑ Unteres Deckblech entfernen (Abschnitt 4.2.2).
- ❑ Gehäuse-Rückwand (Anschlussfeld) entfernen (Abschnitt 4.2.4).
- ❑ Mit einem Schraubendreher (Grösse 00) die Gehäuse der XLR-Stecker und -Buchsen lösen. (Schraubendreher beim vierten Loch einstecken und die Verriegelung durch eine leichte Linksdrehung lösen.) Das obere Blech vorsichtig entfernen.
- ❑ 7 Schrauben Fig. 3 [19] lösen und das untere Blech entfernen.

Montagehinweis: Darauf achten, dass sich das obere Blech bei der Montage nicht verkantet.

4.3.11 Primär-Sicherung

- ❑ Deckel zum Netzspannungswähler öffnen.
- ❑ Die Primär-Sicherung ist zugänglich.

4.3.12 Sekundär-Sicherungen

- ❑ Ein-/Ausgangs-Einheit vom Mischpult trennen (Abschnitt 4.2.1).
- ❑ Unteres Deckblech entfernen (Abschnitt 4.2.2).
- ❑ NETZTEIL entfernen (Abschnitt 4.3.2).
- ❑ Die Sekundär-Sicherungen sind zugänglich.
  (siehe Bestückungsplan 1.775.210 / 220)

5 Abgleichanleitung

5.1 Allgemeine Hinweise 1
5.1.1 Entmagnetisieren der Mikrofon-Eingangsübertrager 2
5.1.2 Benötigte Messgeräte 2
5.1.3 Vorbereitungen 3

5.2 Netzteil 3
5.2.1 Phantomspeisung 3
5.2.2 +15 V-Speisung 3
5.2.3 - 15 V-Speisung 3

5.3 Eingangs-Einheit 4
5.3.1 Eingangspegel 4
5.3.2 Eingangsklirrfaktor 4
5.3.3 Eingangs-Flachbahnregler 5

5.4 Summen-Platine 5
5.4.1 Summen-Flachbahnregler 5
5.4.2 Summenklirrfaktor 5

5.5 Anzeige-Einheit 6
5.5.1 Aussteuerungsanzeige 6

5.6 Messen der Audio Daten 6
5.6.1 Klirrfaktor 7
5.6.2 Ausgangspegel und Kanalgleichheit 7
5.6.3 Frequenzgang 7
5.6.4 Übersprechdämpfung 8
5.6.5 Fremdspannungsabstand 8

5 Abgleichanleitung

5.1 Allgemeine Hinweise

Pegeldefinitionen

Pegelangaben erfolgen in dBu.

0 dBu ≙ 0,775 $V_{eff.}$

- Nennpegelangaben in dBu basieren ausschliesslich auf einem festgelegten Spannungswert als Bezugsgrösse:
- Die Bezugsgrösse 0,775 V des relativen Spannungspegels in dBu wurde von der Wertdefinition des absoluten Spannungspegels in dBu übernommen; jedoch ohne Bindung an die Definition (600Ω/1 mW).

Nennpegel = Studiopegel bei Vollaussteuerung

- Der Nennpegel (auch Leitungspegel) entspricht dem Studiopegel bei Vollaussteuerung.
  Typische Nennpegel sind:
  + 6 dBu ≙ 1,55 $V_{eff.}$
  +10 dBu ≙ 2,45 $V_{eff.}$
  +14 dBu ≙ 3,88 $V_{eff.}$

Vorsicht: Elektrisierungsgefahr bei geöffnetem Gerät! Teile im Gerät führen Netzspannung.

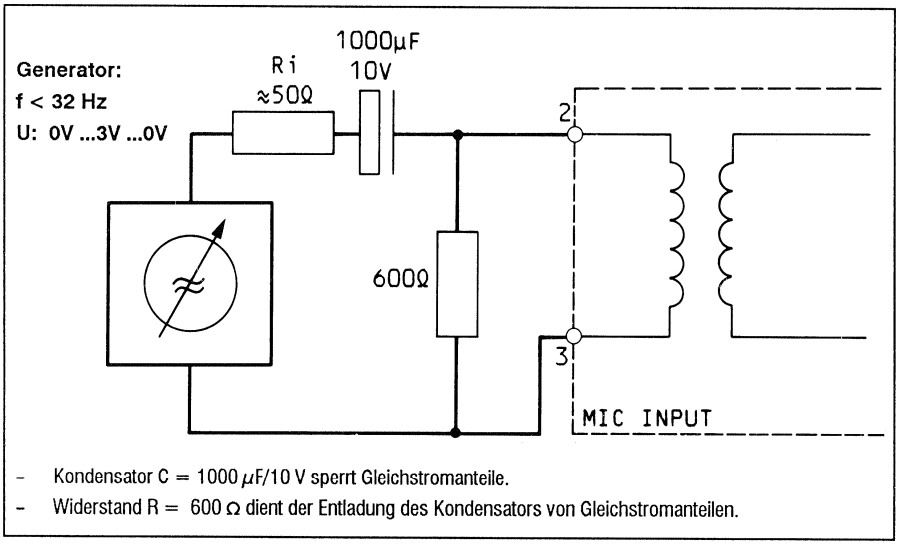
- Von STUDER REVOX angelieferte Module können ohne Abgleicharbeiten in das Gerät eingesetzt werden. Ein erneutes Einmessen des Mischpultes ist nur nach Änderungen an den einzelnen Modulen erforderlich. Eine turnusgemässe Wartungseinmessung wird bei dieser Generation von Mischpulten nicht mehr beansprucht. Einzige Wartungsmassnahme bleibt das nachfolgend beschriebene gelegentliche Entmagnetisieren der Eingangsübertrager.

5.1.1 Entmagnetisieren der Mikrofon-Eingangsübertrager

- Unerlaubtes Anschliessen asymmetrischer Eingangsquellen, oder unbeabsichtigter Masseschluss der a/b-Tonadern der Mikrofoneingänge mit zugeschalteter Phantomspeisung, treiben die Eingangsübertrager in die Sättigung und bewirken deren permanente Magnetisierung (Remanenz). Dies äussert sich nachteilig mit stark erhöhtem Klirrfaktor und dem sogenannten Mikrofonie-Effekt: Leichte mechanische Einwirkungen auf das Mischpult, z.B. das Antippen, bewirken eine hörbare Modulation über die Ausgänge, auch bei unbenutzten Mikrofoneingängen.
- Remanenz kann sich auch im Laufe einer längeren Betriebsdauer in den Übertragern kumulieren.
- Es empfiehlt sich deshalb, alle Mikrofon-Eingänge periodisch, und vor Einmessvorgängen, zu entmagnetisieren:

Vorgehen:

- Das Mischpult ausschalten.
  (Zum Schutze angeschlossener Lautsprecher).
- Am Mikrofoneingang über einen Trennkondensator mit einem NF-Generator eine Frequenz von <32 Hz einspeisen.



- Kondensator C = 1000 µF/10 V sperrt Gleichstromanteile.
- Widerstand R = 600 Ω dient der Entladung des Kondensators von Gleichstromanteilen.

- Einspeisepegel sukzessive von 0 V auf 3 V erhöhen.
- Einspeisepegel l a n g s a m auf 0 V zurückregeln.

5.1.2 Benötigte Messgeräte

- Digitalvoltmeter
- NF-Voltmeter, $R_{zin} \geq 10k\Omega$
- NF-Generator, $R_s \leq 200\Omega$
- Klirrfaktor-Messgerät

5.1.3 Vorbereitungen

- Das Gerät vom Netz trennen
- Ein-/Ausgangs-Gehäuse vom Mischpult trennen (Abschnitt 4.2.1)
- *Unteres Deckblech entfernen* (Abschnitt 4.2.2).
- Alle Flachbahnregler in die Stellung $-\infty$, die Klangregler (Höhen- und Tiefenregler) in Mittelstellung und die Eingangswahlschalter in die Stellung STEREO bringen.
- Das Gerät auf eine Seitenwand stellen.
- Das Gerät wieder ans Netz anschliessen.

5.2 Netzteil 1.775.490

5.2.1 Phantomspeisung

- Das Netzteil 1.775.490 ausbauen (Abschnitt 4.3.2).
- Die Steckverbindung Netzteil --> Netztransformator bestehen lassen.
- Das Digitalvoltmeter an Steckerpunkt P2 Pin 1 (0 V) und P2 Pin 5 (+48 V) anschliessen.
- Das Gerät einschalten.
- Die Spannung mittels dem Trimmpotentiometer **RA3** auf +48 V einstellen.
- Das Gerät ausschalten und das Netzteil wieder einbauen.

5.2.2 +15 V-Speisung

- Das Digitalvoltmeter auf der Summen-Einheit 1.775.430 an J1 Pin 2 (0 V) und J1 Pin 1 anschliessen.
- Das Gerät einschalten.
- Die Spannung auf dem Netzteil 1.775.490 mittels dem Trimmpotentiometer **RA2** auf +340 mV ±1 mV abgleichen.

5.2.3 -15 V-Speisung

- Das Digitalvoltmeter auf der Summen-Einheit 1.775.430 an J1 Pin 2 (0 V) und J1 Pin 9 anschliessen.
- Das Gerät einschalten.
- Die Spannung auf dem Netzteil 1.775.490 mittels dem Trimmpotentiometer **RA1** auf -65 mV ±0,5 mV abgleichen.

5.3 Eingangs-Einheit 1.775.420

5.3.1 Eingangspegel

- Den Eingangswahlschalter [a] in die Position STEREO bringen.
- Den Eingangspegelregler [b] auf 0 dB Position stellen.

Stereo-Eingang links

- Am asymmetrischen Eingang STEREO L [ad] links mit dem NF-Generator 1kHz/0 dBu (775 $mV_{eff.}$) einspeisen.
- Voltmeter am Ausgang PRE FADER [af] anschliessen (Bereich 0dB/1 V).
- Mit dem Trimmpotentiometer **RA11** den PRE FADER-Ausgang auf -6 dBu (388 $mV_{eff.}$) abgleichen.

Stereo-Eingang rechts

- Am asymmetrischen Eingang STEREO R [ad] rechts mit dem NF-Generator 1 kHz/0 dBu (775 $mV_{eff.}$) einspeisen.
- Mit dem Trimmpotentiometer **RA12** den Ausgang PRE FADER [af] auf -6dBu (388 $mV_{eff.}$) abgleichen.

Mono-Eingang

- Den Eingangswahlschalter [a] in die Position MONO bringen.
- Am symmetrischen Line Eingang MONO [ac] mit dem NF-Generator 1kHz/+6 dBu (1,55 $V_{eff.}$) einspeisen.
- Mit dem Trimmpotentiometer **RA13** den Ausgang PRE FADER [af] auf 0 dBu (775 $mV_{eff.}$) abgleichen.

5.3.2 Eingangsklirrfaktor

- Den Eingangswahlschalter [a] in die Position STEREO bringen.
- Den Eingangspegelregler [b] auf 0 dB Position stellen.

Linker Kanal

- Am asymmetrischen Eingang STEREO L [ad] links mit dem NF-Generator 1kHz/0 dBu (775 $mV_{eff.}$) einspeisen.
- Voltmeter am Ausgang AFTER FADER [ae] anschliessen (Bereich 0 dB/1 V).
- Mit dem Eingangs-Flachbahnregler [h] auf -6 dBu (388 $mV_{eff.}$) abgleichen.
- Das Klirrfaktor-Messgerät am Ausgang AFTER FADER [ae] anschliessen.
- Mit dem Trimmpotentiometer **RA4** auf minimalen Klirr abgleichen.

Rechter Kanal

- Am asymmetrischen STEREO Eingang R [ad] rechts mit dem NF-Generator 1kHz/0 dBu (775 $mV_{eff.}$) einspeisen.
- Voltmeter am Ausgang AFTER FADER [ae] anschliessen (Bereich 0dB/1V).
- Mit dem Eingangs-Flachbahnregler [h] auf -6 dBu (388 $mV_{eff.}$) abgleichen.
- Das Klirrfaktor-Messsgerät am Ausgang AFTER FADER [ae] anschliessen.
- Mit dem Trimmpotentiometer **RA3** auf minimalen Klirr abgleichen.

5.3.3 Eingangs-Flachbahnregler

- Am asymmetrischen Eingang STEREO L [ad] links mit dem Generator 1kHz/0 dBu (775 $mV_{eff.}$) einspeisen.
- Voltmeter am Ausgang AFTER FADER [ae] anschliessen (Bereich 0dB/1 V).
- Den Eingangswahlschalter [a] in die Position STEREO bringen.
- Flachbahnregler [h] auf 0 dB einstellen.
- Mit dem Eingangspegelregler [b] auf 0 dBu (775 $mV_{eff.}$) abgleichen.
- Flachbahnregler auf -60 dB Position stellen und mit Trimmer **RA14** den Ausgang AFTER FADER [ae] auf -60 dBu einstellen.

5.4 Summen-Einheit 1.775.430

5.4.1 Summen-Flachbahnregler

- Am asymmetrischen Eingang STEREO L wie unter Punkt 5.3.3 beschrieben 1kHz/0dBu (775 $mV_{eff.}$) einspeisen.
- Flachbahnregler [h] auf 0 dB Position stellen.
- Voltmeter an Summenausgang UNBAL [17] anschliessen (Bereich 0dB/1V).
- Summenflachbahnregler [m] auf 0 dB Position stellen.
- Mit dem Eingangspegelregler [b] auf 0 dBu (775 $mV_{eff.}$) abgleichen.
- Summenflachbahnregler auf -60 dB Position stellen und mit Trimmer **RA6** auf -60 dBu einstellen.

5.4.1 Summenklirrfaktor

- Zuerst müssen die sechs Eingangs-Einheiten abgeglichen werden. Die Flachbahnregler der Eingänge [2] ... [6] sind in die Stellung $-\infty$ zu bringen.

Linker Kanal

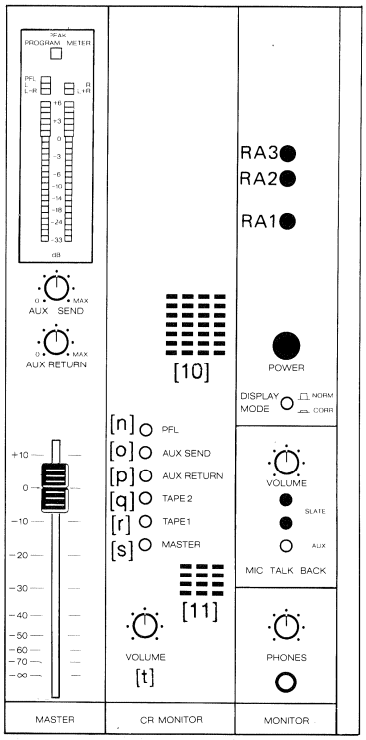
- Am asymmetrischen Eingang STEREO L [ad] links mit dem Generator 1kHz/0dBu (775 $mV_{eff.}$) einspeisen.
- Voltmeter an Summe UNBAL L [17] links anschliessen (Bereich 0dB/1V).
- Den Eingangswahlschalter [a] in die Position STEREO bringen.
- Eingangs- und Summenflachbahnregler [h und m] auf 0 dB Position stellen.
- Mit dem Eingangspegelregler [b] auf 0 dBu (775 $mV_{eff.}$) abgleichen.
- Das Klirrfaktor-Messgerät am Summenausgang UNBAL L [17] links anschliessen.
- Mit dem Trimmpotentiometer **RA1** auf minimalen Klirr abgleichen.

Rechter Kanal

- Am asymmetrischen Eingang STEREO R [ad] rechts mit dem Generator 1kHz/0dBu (775 $mV_{eff.}$) einspeisen.
- Voltmeter an Summe UNBAL R [17] rechts anschliessen (Bereich 0dB/1V).
- Den Eingangswahlschalter [a] in die Position STEREO bringen.
- Eingangs- und Summenflachbahnregler [h und m] auf 0 dB Position stellen.
- Mit dem Eingangspegelregler [b] auf 0 dBu (775 $mV_{eff.}$) abgleichen.
- Das Klirrfaktor-Messgerät an Summe UNBAL R [17] rechts anschliessen.
- Mit dem Trimmpotentiometer **RA2** auf minimalen Klirr abgleichen.

5.5 Anzeige-Einheit 1.775.310

5.5.1 Aussteuerungsanzeige



- Bei der 1. Eingangseinheit am asymmetrischen Eingang STEREO L [ad] links mit dem Generator 1 kHz/0 dBu (775 $mV_{eff.}$) einspeisen.
- Das NF-Voltmeter am Summenausgang MASTER OUTPUT BALANCED [16] links anschliessen (Bereich 10 dB/3 V).

- Den Eingangswahlschalter [a] in die Position STEREO bringen.
- Eingangs- und Summenflachbahnregler [h und m] auf 0 dB Position stellen.
- Den Schiebeschalter OUTPUT LEVEL [14] in Stellung 6 dBu bringen.
- Mit dem Eingangspegelregler [b] auf +6 dBu (1,55 $V_{eff.}$) abgleichen.
- Am Monitorselektor die Taste MASTER [s] drücken.

- Mit dem Trimmpotentiometer **RA3** (von der Frontseite zugänglich) den linken Anzeigebalken so einstellen, dass die 0 dB-LED aufleuchtet.

- Den rechten Balken auf die gleiche Art mit **RA2** abgleichen.

- Die Helligkeit der Anzeige kann mit **RA1** eingestellt werden. Der Kontrast zur Umgebungshelligkeit wird über einen lichtempfindlichen Widerstand geregelt.

5.6 Messen der Audio Daten

- Klirrfaktor
- Ausgangspegel
- Frequenzgang
- Übersprechdämpfung
- Fremdspannungsabstand

5.6.1 Klirrfaktor

- Bei der ersten Eingangseinheit am asymmetrischen Eingang STEREO L [ad] links mit dem Generator 1 kHz/0 dBu (775 $mV_{eff.}$) einspeisen.
- Das NF-Voltmeter am Summenausgang UNBAL L [17] links anschliessen (Bereich 0 dB/1 V).
- Den Eingangswahlschalter [a] in die Position STEREO bringen.
- Den Eingangs- und den Summenflachbahnregler [h und m] auf 0 dB Position stellen.
- Mit dem Eingangspegelregler [b] auf 0 dBu (775 $mV_{eff.}$) abgleichen.
- Das Klirrfaktor - Messgerät an Summenausgang UNBAL L [17] links anschliessen.

- Der gemessene Wert darf **0,03 %** nicht übersteigen.

- Messung analog für den rechten Kanal durchführen.

5.6.2 Ausgangspegel und Kanalgleichheit

- Bei der ersten Eingangseinheit am asymmetrischen Eingang STEREO L [ad] links mit dem Generator 1 kHz/0 dBu (775 $mV_{eff.}$) einspeisen.
- Das NF-Voltmeter am Summenausgang MASTER OUTPUT BALANCED [16] links anschliessen (Bereich 10 dB/3 V).
- Den Eingangswahlschalter [a] in die Position STEREO bringen.
- Eingangs- und Summenflachbahnregler [h und m] auf 0 dB Position stellen.
- Den Schiebeschalter OUTPUT LEVEL [14] in Stellung 6 dBu bringen.
- Mit dem Eingangspegelregler [b] auf +6 dBu (1,55 $V_{eff.}$) abgleichen.
- In den Stellungen +10 dBu und +14 dBu des Schiebeschalters [14] müssen die entsprechenden Werte gemessen werden.

- Die Messungen sind auch mit dem rechten Kanal durchzuführen.
  Die **Kanalgleichheit** muss **besser als 1,5 dB** sein.

5.6.3 Frequenzgang

- Bei der ersten Eingangseinheit am asymmetrischen Eingang STEREO L [ad] links mit dem Generator 1 kHz/0 dBu (775 $mV_{eff.}$) einspeisen.
- Das NF-Voltmeter am Summenausgang MASTER OUTPUT BALANCED [16] links anschliessen (Bereich 10 dB/3 V).
- Den Eingangswahlschalter [a] in die Position STEREO bringen.
- Eingangs- und Summenflachbahnregler [h und m] auf 0 dB Position stellen.
- Den Schiebeschalter OUTPUT LEVEL [14] in Stellung 6 dBu bringen.
- Mit dem Eingangspegelregler [b] auf +6 dBu (1,55 $V_{eff.}$) abgleichen.
- Die Frequenz des NF-Generators von 20 Hz ... 20 kHz verändern. Der Ausgangspegel darf sich dabei um **maximal ±1 dB** verändern.

- Die gleiche Messung ist mit dem rechten Kanal durchzuführen.

5.6.4 Übersprechdämpfung

- Bei der ersten Eingangseinheit am asymmetrischen Eingang STEREO L [ad] **links** mit dem Generator 1 kHz/0 dBu (775 $mV_{eff.}$) einspeisen.
- Den asymmetrischen Eingang STEREO R [ad] rechts mit einem **1 kΩ Widerstand** abschliessen.

- Das NF-Voltmeter am Summenausgang MASTER OUTPUT BALANCED [16] links anschliessen (Bereich 10 dB/3 V).
- Den Eingangswahlschalter [a] in die Position STEREO bringen.
- Den Eingangs- und den Summenflachbahnregler auf 0 dB Position stellen.
- Den Schiebeschalter OUTPUT LEVEL [14] in Stellung 6 dBu bringen.
- Mit dem Eingangspegelregler [b] auf +6 dBu (1,55 $V_{eff.}$) abgleichen.

- Das NF-Voltmeter am Summenausgang MASTER OUTPUT BALANCED [16] **rechts** anschliessen.
- Die gemessene **Übersprechdämpfung** muss **>50 dB** betragen.

- Wird der Eingangsflachbahnregler [h] in die Stellung -∞ gebracht, so beträgt die **Ausschaltdämpfung >85 dB**. Wird anstelle des Eingangs-Flachbahnreglers der Summen-Flachbahnregeler [m] in die Stellung -∞ gebracht, so beträgt die Ausschaltdämpfung >90 dB.

- Die Messung mit vertauschten Kanälen wiederholen.

5.6.5 Fremdspannungsabstand

- Bei der ersten Eingangseinheit am asymmetrischen Eingang STEREO L [ad] links mit dem Generator 1 kHz/0 dBu (775 $mV_{eff.}$) einspeisen.
- Das NF-Voltmeter am Summenausgang MASTER OUTPUT BALANCED [16] links anschliessen (Bereich 10 dB/3 V).
- Den Eingangswahlschalter [a] in die Position STEREO bringen.
- Eingangs- und Summenflachbahnregler auf 0 dB Position stellen.
- Den Schiebeschalter OUTPUT LEVEL [14] in Stellung 6 dBu bringen.
- Mit dem Eingangspegelregler [b] auf +6 dBu (1,55 $V_{eff.}$) abgleichen.

- Das NF-Voltmeter am Summenausgang MASTER OUTPUT BALANCED [16] rechts anschliessen.
- Den NF-Generator vom Eingang entfernen und den Eingang mit einem **1 kΩ Widerstand** abschliessen.

- Der gemessene **Fremdspanungsabstand** muss **>100 dB** betragen.

- Die Messung ist mit dem rechten Kanal zu wiederholen.

1 **General**

Introduction	1/1
Operator controls	1/2
Connector panel	1/4
Technical Data	1/7
Accessories	1/10

2 **Start-up procedure**

Connection to the AC power source	2/1
Power on procedure	2/1
Microphone phantom supply	2/1
Connecting the inputs	2/2
Connecting the outputs	2/2

3 **Functional description**

Power supply	3/1
Display module	3/1
Input module	3/2
Master module	3/3
Monitor module	3/3
Input/output module	3/4
Control room monitor module	3/5

4 **Disassembly instructions**

General information	4/1
Housing	4/2
Electronic assemblies	4/4

5 **Alignment instructions**

General information	5/1
Power supply	5/3
Input module	5/4
Master module	5/5
Display module	5/6
Measuring the audio data	5/6

6 **Circuit diagrams**

1 General

1.1 Introduction 1

1.2 Operator controls 2

1.3 Connector panel 4

1.4 Technical data 7

1.4.1 Electronic data 7
1.4.2 Mechanical data 9

1.5 Accessories 10

1.5.1 Accessory kit 10
1.5.2 19" rack mounting kit 10
1.5.3 Bus connection cable 10
1.5.4 Transport case 10
1.5.5 Knobs and Push Bttons 11

1 General

1.1 Introduction

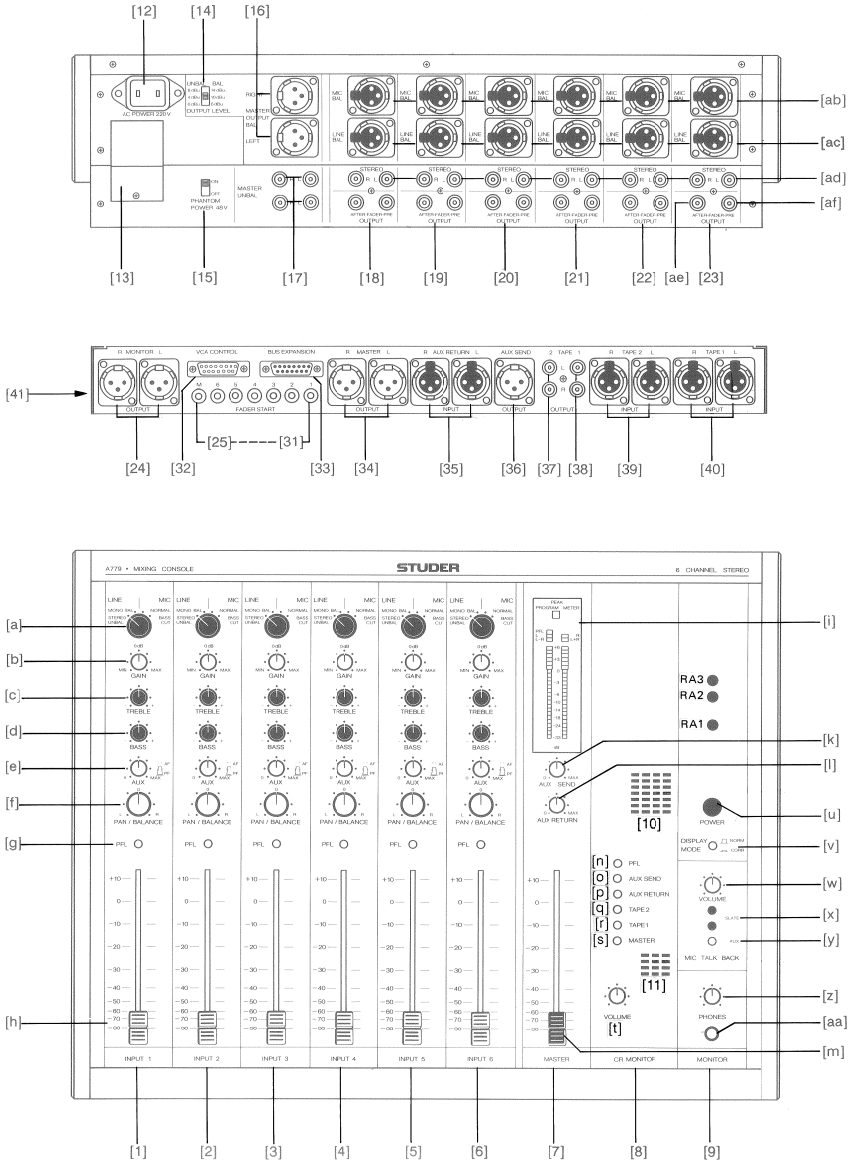
- The professional small mixer STUDER A779 is an universal mixing console that is principally intended for OB applications. Each of the six input paths in the basic unit is designed for 2-channel operation which means that each path can be used either for high-level stereo signals (in which case the inputs are unbalanced) or in mono mode with balanced input. This circuit arrangement also accepts microphone input signals.

- The expansion unit which becomes an integral part of the basic unit when installed below the latter, features additional balancing stages so that three high-level stereo feedbacks (six channels) e.g. from tape recorders or effect machines have a balanced termination and can be connected to one input path each.

- Depending on the wiring, the mixing console can have between six and fourteen input channels (including the AUX RETURN inputs).

- When an input path is operated in stereo mode, the controls influence both channels.

- The modules referred to in the subsequent description are not necessarily physically separable assemblies but functional modules (example: the "input module" consists of a circuit board and the operator controls integrated in the operator surface; electrically it is a separate unit, however).



1.2 Operator controls

Element	Function
[1] INPUT 1	**Stereo input module comprising the following elements:**
[a] INPUT SELECTOR	▪ Rotary switch for selecting the various inputs: LINE: MONO BAL. (balanced) STEREO UNBAL. (unbalanced) MIC: NORMAL (balanced, floating) BASS CUT (filter active)
	Caution: Never connect high-level signal sources and stereo hi-fi signal sources to the same input!
[b] GAIN	▪ Input level control. For matching the level of the various signal sources. The scale of this control features a calibration mark at 0 dB which identifies 0 dB gain across the entire channel when the input selector is in the LINE position and the input and master fader are in the 0 dB position.
[c] TREBLE	▪ Treble control. Potentiometer for accentuating or de-emphasizing the treble range (±15 dB at 20 kHz). No influence on the frequency response when this control is in the center position.
[d] BASS	▪ Bass control. Potentiometer for accentuating or de-emphasizing the bass range (±15 dB at 20 Hz). No influence on the frequency response when this control is in the center position.
[e] AUX	▪ Potentiometer for driving the monophonic AUX bus, with integrated push-pull switch for PF/AF (prefader/after-fader) changeover.
[f] PAN/BALANCE	▪ In the modes LINE, MIC, NORM, and MIC BASS CUT it functions as a panorama potentiometer (distributing the signal to the left-hand and the right-hand channel). In STEREO mode it functions as a balance potentiometer.
[g] PFL	▪ Push button for prefader listening; connects the signal monophonically to the PFL bus.
[h] FADER	▪ Linear fader for attenuating the signal.
[2] INPUT 2...[6] INPUT 6	▪ Stereo input modules with the same configuration as INPUT 1.
[7] MASTER	**Stereo output module comprising the following elements:**
[i] PEAK PROGRAM METER	▪ Two LED strips indicate the momentary peak values of the selected monitoring source. If the momentary push button DISPLAY MODE is pressed in stereo mode, it is possible to assess the mono compatibility (see 3,2, Page E 3/1).

EDITION: 28 September 1989

Element	Function
[k] AUX SEND	■ Level control of the master signal AUX SEND [36] (output of the mono AUX bus).
[l] AUX RETURN	■ Level control of the stereo RETURN AUX input [35].
[m] MASTER FADER	■ Stereo fader for attenuating the master output signal; range +10...-70 dB.
[8] CR MONITOR	**Monitor module comprising the following elements:**
[n] PFL	■ Push button for connecting the PFL bus to the monitor bus. (The mono PFL signal is mixed down equally to the left-hand and the right-hand channel of the monitor bus.)
[o] AUX SEND	■ Push button for connecting the AUX bus to the monitor bus. (The mono AUX signal is mixed down equally to the left-hand and the right-hand channel of the monitor bus).
[p] AUX RETURN	■ Push button for connecting the left-hand and the right-hand channel of the AUX RETURN [35] to the monitor bus.
[q] TAPE 2	■ Push button for connecting the left-hand and the right-hand channel of the TAPE 2 [39] input to the monitor bus.
[r] TAPE 1	■ Push button for connecting the left-hand and the right-hand channel of the TAPE 1 [38] input to the monitor bus.
[s] MASTER	■ Push button for connecting the left-hand and the right-hand master channel to the monitor bus.
[t] VOLUME	■ Potentiometer for adjusting the volume of the left-hand and the right-hand monitor output [24].
[9] MONITOR	**Monitor module comprising the following elements:**
[u] POWER	■ AC Power switch
[v] DISPLAY MODE	■ Push button switch for changing over the peak program meter. NORM position = level indication CORR position = correlation indication (see peak program meter [i])
[w] VOLUME MIC	■ Sensitivity potentiometer of the built-in microphone [11].
[x] SLATE	■ For announcing via the master bus (both buttons pressed simultaneously)
[y] MIC TALK BACK AUX	■ For announcing via the aux bus
[z] VOLUME	■ Potentiometer for adjusting the monitor speaker [10] volume or the headset [aa] volume.
[aa] PHONES	■ Stereo jack socket for connecting the headphones (200 Ω ... 600 Ω). The built-in monitor speaker is automatically muted when the headphones are plugged in.

Element	Function
[10] SPEAKER	■ Control room speaker
[11] MICROPHONE	■ Microphone for announcing via the AUX or master bus.

1.3 Connector panel

Element	Function
[12] AC POWER	■ Power inlet
[13] VOLTAGE SELECTOR	■ Line voltage selector and power fuse
[14] OUTPUT LEVEL	■ Slide switch for matching the 0 dB master level to the prevailing studio level.

UNBALANCED	0 dBu	=	0.775	V_{eff}
	+4 dBu	=	1.23	V_{eff}
	+8 dBu	=	1.95	V_{eff}
BALANCED: (floating)	+ 6 dBu	=	1.55	V_{eff}
	+10 dBu	=	2.45	V_{eff}
	+14 dBu	=	3.88	V_{eff}

All XLR connectors have the following pin assignment:

1 = screen
2 = a-wire
3 = b-wire

[15] PHANTOM POWER 48 V	■ Slide switch for activating the microphone phantom supply of all input modules (for condenser microphones).
[16] MASTER OUTPUT BAL. L/R	■ Balanced outputs of the left-hand and right-hand master channel (XLR connectors).
[17] MASTER UNBAL. R/L	■ Two parallel-connected, unbalanced outputs each of the left-hand and the right-hand master channel (CINCH connectors).
[18] INPUT 6	**Stereo input module with the following connector configuration:**
[ab] MIC BAL.	■ Balanced and floating microphone input of input 6 (XLR connector, mono).
[ac] LINE BAL.	■ Balanced high-level input of input 6 (XLR connector, mono).
[ad] STEREO L/R	■ Unbalanced inputs of the left-hand and right-hand input 6 for high-level sources (CINCH connectors).
[ae] OUTPUT AFTER FADER	■ Unbalanced mono output. The signal is tapped after the linear fader and added to a mono signal (CINCH connector).

Element	Function
[af] OUTPUT PRE FADER	■ Unbalanced mono output. The signal is tapped before the linear fader and added to a mono signal (CINCH connector).
[19] INPUT 5 ... [23] INPUT 1	■ Stereo input modules with identical pin assignment as for input 6.
[24] MONITOR OUTPUT	■ Balanced outputs of the left-hand and right-hand monitor bus (XLR connectors). Output level adjustable with volume control [t]. Muting (monitor cut) with open microphone can be programmed with the DIP switch [41].
[25] FADER START M (MASTER)	■ Jack socket (3.5 mm, stereo) for connecting a fader start cable. When the master fader is opened, an electrically isolated relay make contact is actuated (also refer to Section 3.6).
[26] FADER START 6 ... [31] FADER START 1	■ Jack socket (3.5 mm, stereo) for connecting a fader start cable. When the corresponding input fader is opened, an electrically isolated relay make contact is actuated (also refer to section 3.6.).
[32] VCA CONTROL	■ The gain of the individual input channels can also be remote controlled (option 850). The gain is influenced by applying a corresponding control voltage (TTL range); where: 0V fader fully open (v = 0 dB) +5V fader fully closed (v= -100 dB) ■ The interface in the A779 can be controlled directly from certain video editing stations, e.g. SONY BVE 600, BVE 900 and BVE 9000. For other applications it is necessary to create corresponding voltage generators.

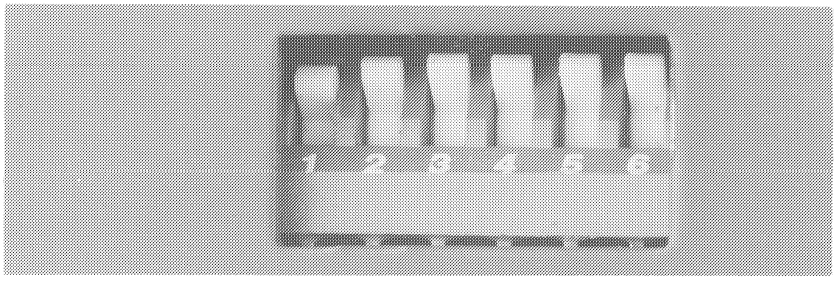
Pin assignment:	Pin 1 = Control voltage input 1 Pin 2 = Control voltage input 2 Pin 3 = Control voltage input 3 Pin 4 = Control voltage input 4 Pin 5 = Control voltage input 5 Pin 6 = Control voltage input 6 Pin 9 = 0 Volt

Element	Function
[33] BUS EXPANSION	■ Expansion socket for connecting a second A779 mixing console. The master and slave function is determined by the installation of the connection cable. The connectors of the cable are correspondingly labelled.

Pin assignment:						
Pin 1	=	MBR–IN	Pin 9	=	BC	
Pin 2	=	MBL–IN	Pin 10	=	0 Volt	
Pin 3	=	SB–IN	Pin 11	=	0 Volt	
Pin 4	=	PFL–IN	Pin 12	=	0 Volt	
Pin 5	=	MBR–OUT	Pin 13	=	0 Volt	
Pin 6	=	MBL–OUT	Pin 14	=	0 Volt	
Pin 7	=	SB–OUT	Pin 15	=	0 Volt	(SCREEN)
Pin 8	=	PFL–OUT				

Signal names: **MB** = Master Bus; **SB** = Send Bus; **PFL** = Pre Fader Listening; **BC** = Bus Controller; **L** = left; **R** = right;

[34] MASTER OUTPUT R/L	■ Balanced and floating outputs of the right–hand and left–hand master channel (XLR connectors).
[35] AUX RETURN R/L INPUT	■ Balanced and floating AUX inputs of the left–hand and right–hand master bus (XLR connectors).
[36] AUX SEND OUTPUT	■ Balanced output of the AUX bus (CLR connector, mono).
[37] TAPE 2 OUTPUT L/R	■ Unbalanced outputs (CINCH connectors). The signal of the balanced high–level input TAPE 2 [39] is connected unbalanced to this output. Series connection to any unbalanced stereo input [ad] with CINCH cable.
[38] TAPE 1 OUTPUT L/R	■ Unbalanced outputs (CINCH connectors). The signal of the balance high–level input TAPE 1 [40] is connected unbalanced to this output. Series connection to any unbalanced stereo input [ad] with CINCH cable.
[39] TAPE 2 INPUT L/R	■ Balanced stereo high–level input
[40] TAPE 1 INPUT L/R	■ Balanced stereo high–level input.
[41] MONITOR CUT	■ The muting of the monitor output can be individually selected via the 6–position DIP CODING SWITCH. If a switch is in the down position, the stereophonic monitor output [24] is muted when the corresponding input fader is opened.



1.4 Technical data

1.4.1 Electronic data

General:

Measuring conditions:
All voltages in dBu are relative to 775 mV_{eff}. All INPUT FADERS and the MASTER FADER are to be set to 0 dB, the treble and bass controllers to their center position.

Levels:

- Control range for 0 dB indication on peak meter:

GAIN MIC:	-60 dBu ... 0 dBu
GAIN LINE, STEREO:	-20 dBu ... + 16 dBu
AUX RETURN:	-4 dBu ... + 22 dBu

- Output level for 0 dB indication on peak meter:

PRE, AFTER FADER:	0 dBu
AUX SEND:	+6 dBu
MASTER unbal.:	0; +4; +8 dBu
MASTER bal.: (adjustable rear panel switch)	+6; +10; +14 dBu
MONITOR max.:	+16 dBu

- TAPE 1, 2 for 0 dB indication on peak meter:

Inputs bal.:	+ 6 dBu
Outputs unbal.:	0 dBu

Overload margin:

- Maximum input level:

MIC:	0 dBu
LINE bal, STEREO:	+20 dBu
AUX RETURN, TAPE:	+26 dBu

- Maximum output level:

Unbalanced:	+20 dBu
Balanced:	+24 dBu
Balanced transformer:	+26 dBu

Impedances:

- Input impedance:

MIC:	>1.2 kohm
LINE; STEREO:	47 kohm
AUX RETURN, TAPE:	> 10 kohm

- Output impedance:

MASTER bal.; AUX SEND, MONITOR:	<50 ohm
MASTER unbal.:	<1.0 kohm
OUTPUT PF, AF:	<50 ohm

Frequency response:

- Linear (treble and bass control in center position)

20 Hz ... 20 kHz	+1 ... -1 dB
Bass cut 12 dB/octave, -3 dB:	70 Hz
Treble control 20 kHz:	+15 ... -15 dB
Bass control 20 Hz:	+15 ... -15 dB

Signal-to-noise ratio:

- RMS value for 20 Hz ... 20 kHz

1 x MIC relative to -60 dBu input voltage, 200 Ω termination:	> 63 dB
1 x LINE relative to 0 dBu input voltage, 1 kΩ termination:	> 90 dB
6 x LINE relative to 0 dBu input voltage:	> 86 dB
Master fader closed	> 100 dB

Harmonic distortion:

- LINE 0 dBu input +6 dBu master output

	1 kHz:	<0.03%
	20 Hz ... 20 kHz:	<0.15%
MIC -20 dBu input	1 kHz:	<0.03%
	30 Hz ... 15 kHz:	<0.15%

Cross talk:

- Left-right crosstalk of a

stereo input at 10 kHz:	> 50 dB
Disconnection attenuation of channel controller at 10 kHz: > 86 dB INPUT	>90 dB
Disconnection attenuation of master fader	> 100 dB

Display:

- LED bargraph instrument with PPM characteristic (peak program meter) for quasi peak indication. The LEDs arranged out to the following scale:

Ranges:	+6 ... +1dB	in 1 dB steps (red)
	0 ... -6dB	in 1 dB steps (green)
	-7 ... -18dB	in 2 dB steps (green)
	-19 ...-33dB	in 3 dB steps (green)

- Characteristic switchable from PPM to correlation degree indication of a stereo signal (L-R, L+R).

- LED indicators for:

PFL	(mono)
AUX SEND	(mono)
AUX RETURN	(left, right)
TAPE 2	(left, right)
TAPE 1	(left, right)
MASTER output	(left, right)
Correlation	(L-R, L+R)

Power requirements:

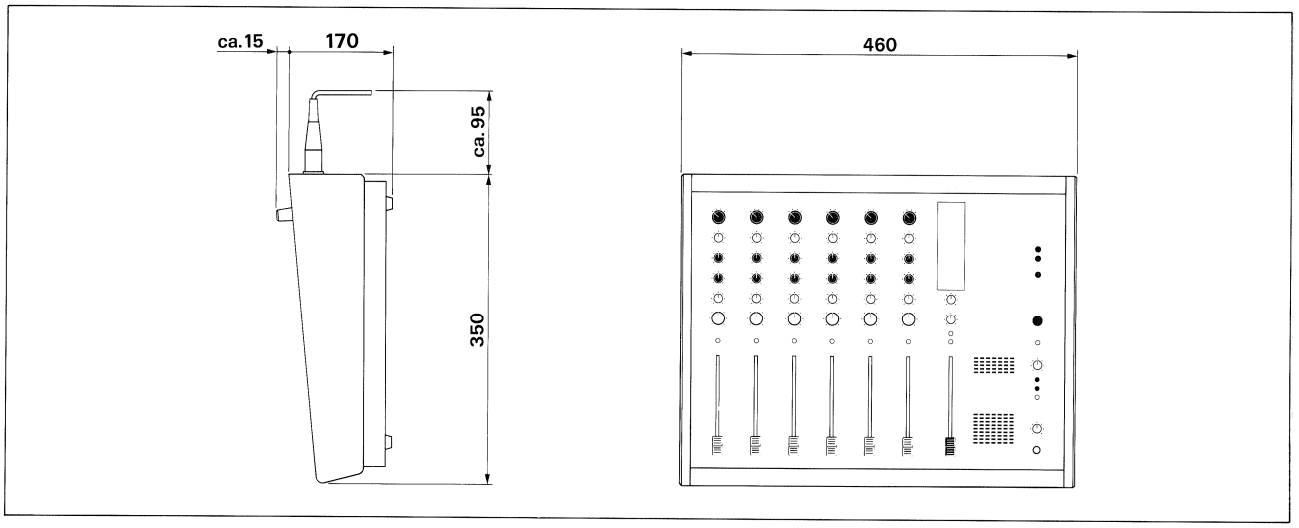
- Line voltage selector:
  100, 120, 140, 200, 220, 240 V
  50 ... 60 Hz, max. 50 W

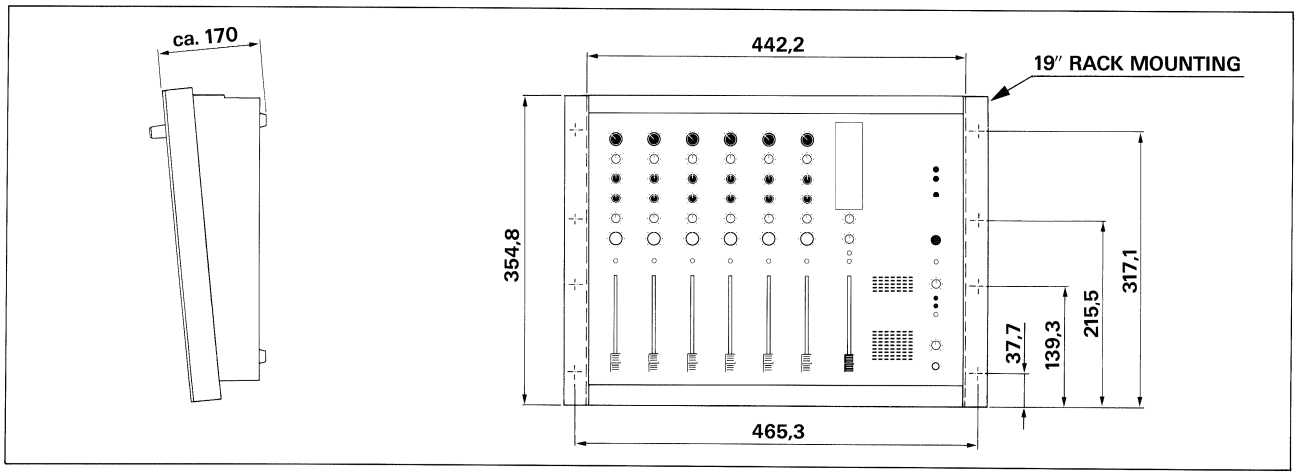
- Power fuse:
  100 ... 140 V 630 mA slow
  200 ... 240 V 315 mA slow

1.4.2 Mechanical data

Weight: ■ MIXING CONSOLE A779: approx. 13 kg

Dimensions: ■ (WxDxH) 460 x 355 x 170 mm





1.5 Accessories

The A779 is supplied with a power cord and an operating and service manual. The following items can be ordered as optional accessories:

1.5.1 Accessory kit — Order No. 1.775.031.00

Item	Quantity	Part No.	Designation
1.	12	54.02.0280	XLR connector (male)
2.	7	54.02.0281	XLR connector (female)
3.	7	54.24.0121	Mini jack, stereo, 3.5mm (fader start)
4.	2	54.21.2080	Cinch - Cinch cable, 0.5 m
5.	2	1.911.000.34	Button, small, YELLOW
6.	2	1.911.000.35	Button, small, GREEN
7.	2	1.911.000.36	Button, small, BLUE
8.	1	51.01.0112	Fuse: 315 mA/250 V, slow
9.	2	51.01.0117	Fuse: 1A/250 V, slow

1.5.2 19" rack mounting kit — Order No. 1.775.361.00

Item	Quantity	Part No.	Designation
1.	3	21.26.0353	Fillister-head screw, M3x5
2.	8	21.26.2454	Flat-head screw, M4x6
3.	2	1.775.360.25	Rack bracket
4.	1	1.775.360.24	Trim strip, bottom

1.5.3 Bus connection cable — Order No. 1.023.767.00

Grey connecting cable, 85 cm, 10-conductor, fitted with two 15-pin D-type connectors. One connector connects the A779 as the master, the other as the slave. Each A779 mixing console can be used for either purpose.

Coupling of two A779:

The coupling of two A779 mixing consoles results in a system with 12 input channels and a master output. The master, aux and PFL buses are connected by the slave console directly to the buses of the master console (the master faders are bypassed). The BC (bus controller) signal connects the bus signals to the D-type BUS EXPANSION connector.

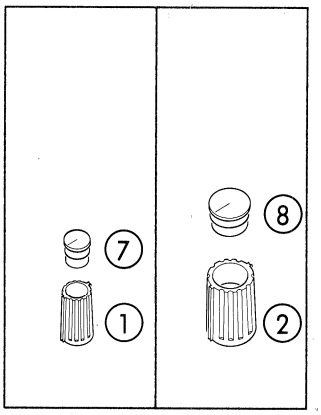
1.5.4 Transport case — Order No. 10.690.001.01

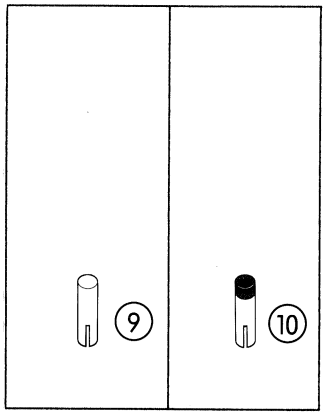
Dual shell plastic case with handle, black, lockable.

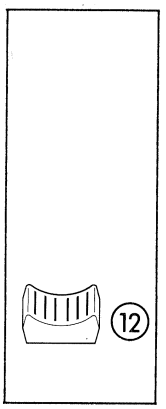
Outside dimensions: 57cm × 45cm × 24 cm

1.5.5 Knobs and Push Buttons

Ind.	ORDER NUMBER	PART NAME	COLOR
01	42.01.0203	knob fixed....ϕ10/4mm with screw	dark grey
	1.775.370.32	knob.....ϕ10/4mm	dark grey
02	1.775.370.31	knob.....ϕ15/4mm	dark grey
07	42.01.0250	Cap with line...ϕ10mm	light grey
	42.01.0251	.....	dark grey
	42.01.0252	.....	black
	42.01.0253	.....	red
	42.01.0254	.....	blue
	42.01.0255	.....	yellow
	42.01.0256	.....	green
08	42.01.0257	Cap with line...ϕ15mm	light grey
	42.01.0258	.....	dark grey
	42.01.0259	.....	black
	42.01.0260	.....	red
	42.01.0261	.....	blue
	42.01.0262	.....	yellow
	42.01.0263	.....	green
09	1.810.320.02	Push button.....	dark grey
	1.810.320.03	.....	blue
	1.810.320.04	.....	yellow
	1.810.320.05	.....	white
	1.810.320.06	.....	green
	1.810.320.07	.....	red
10	1.011.094.02	Push button with.....	red
	1.011.094.03	coloured top.....	orange
	1.011.094.04	.....	yellow
	1.011.094.05	.....	green
	1.011.094.06	.....	blue
	1.011.094.08	.....	light grey
	1.011.094.09	.....	dark grey
12	1.911.000.32	Fader knob.....	red
	1.911.000.33	.....	orange
	1.911.000.34	.....	yellow
	1.911.000.35	.....	green
	1.911.000.36	.....	blue
	1.911.000.38	.....	light grey
	1.911.000.39	.....	white







2 Start-up procedure

2.1 Connecting the mixer to the AC supply 1

2.2 Power-on procedure 1

2.3 Microphone phantom supply 1

2.4 Connecting the inputs 2

2.5 Connecting the outputs 2

2 Start-up procedure

2.1 Connecting the mixer to the AC supply

Verify that the local line voltage matches the rating printed on the power inlet of the mixing console. If this is not the case, the voltage selector must be adjusted correspondingly. The value of the fuses has to be checked and changed, if necessary (see 4.3.11).

- ❑ 100...140 V_{AC}: **T 630 mA L 250 V (slow blow)**
  *USA and CDN (100...140 V_{AC}): **630 mA slow blow UL/CSA***
- ❑ 200...240 V_{AC}: **T 315 mA L 250 V (slow blow)**

2.2 Power-on procedure

The mixing console is powered on by pressing the POWER switch [u]; the peak meter lights up. The mixing console can be switched off and disconnected from the AC supply by pressing the same switch.

2.3 Microphone phantom power

Condenser microphones: Condenser microphones require a supply voltage of 48 V_{DC} which is provided by the mixing console. When the PHANTOM POWER 48 V [15] slide switch is in the ON position, the phantom supply is activated for all input modules.

Dynamic microphones: Dynamic microphones require no additional supply and are simply connected to the microphone inputs. Put the PHANTOM POWER 48 V [15] slide switch to the OFF position.

Note: If dynamic as well as condenser microphones are used simultaneously, *balanced connection of all microphones is required.* In this case set the PHANTOM POWER 48 V [15] slide switch to the ON position.
In the event of unbalanced connection and active phantom supply, the input transformers become magnetized which increases the harmonic distortion. For demagnetizing instructions refer to 5.1.1.

2.4 Connecting the inputs

Microphones:

- ❑ Microphones can be connected to the balanced inputs MIC BAL [ab] of the stereo input modules.
- ❑ The input selectors [a] are to be turned to the position MIC NORMAL or MIC BASS CUT.

High-level input sources:

- ❑ Mono signal sources with balanced high-level output (50 mV_{RMS}...3 V_{RMS}) can be connected to the LINE BAL. [ac] input of the input module.
- ❑ The input selector [a] should be turned to the position LINE MONO BAL.
- ❑ Stereo signal sources with balanced high-level output (50 mV_{RMS}...3 V_{RMS}) can be connected to the inputs TAPE 1 [40] or TAPE 2 [39] of the input/output module. With Cinch-Cinch connecting cables they are tapped on the unbalanced output TAPE 1 [38] or TAPE 2 [37] module and serially connected to any stereo input [18]...[23].

Stereo hi-fi signal sources:

- ❑ Unbalanced stereo signal sources (such as HiFi equipment) can be connected to the stereo inputs [ad] of the stereo input modules. The input selector [a] should be turned to the STEREO UNBAL. position.

Caution: ***Never use both LINE inputs (MONO BAL. and STEREO UNBAL.) of a single input module simultaneously!***

2.5 Connecting the outputs

Balanced outputs:

Master Output Equipment with balanced inputs can be connected to the MASTER OUTPUT BAL. L/R connectors [16]/[34].

Monitor Output A monitoring amplifier or, even more convenient, a pair of active monitor speakers (e.g. the professional studio sound transducers Studer A523, A623, or A723) can be connected directly to the balanced MONITOR OUTPUT [24].

Unbalanced outputs: Equipment with unbalanced inputs can be connected to the MASTER UNBAL. L/R [17] connectors. The Direct Outputs PRE/AFTER FADER [ae]/[af] are terminated on unbalanced connectors as well.

3 Functional description

3.1 Power supply 1
3.2 Display module 1
3.3 Input module 2
3.4 Master module 3
3.5 Monitor module 3
3.6 Input/output module 4
3.7 Control room monitor module 5

3 Functional description

3.1 Power supply 1.775.490

- Primary circuits:
  One pole of the AC line voltage is connected directly to the power transformer. The other pole is connected via the power switch (on monitor module) and via the primary fuse to the line voltage selector and the transformer.

- The following line voltages can be selected:
  100 V, 120 V, 140 V, 200 V, 220 V, and 240 V ±10%, 50 to 60 Hz.

- Secondary circuits:
  The following voltages are available:
  ±15 V Amplifier supply
  +11 V LED supply of the display module
  +48 V Microphone phantom supply
  The amplifier supply (±15 V) is stabilized with two series-connected regulators. The output voltage of these regulators is adjusted with trimmer potentiometers.
  The series pass transistor of the phantom supply (+ 48 V) stabilizes not only the voltage but also switches it on and off. The output voltage can be adjusted with a trimmer potentiometer.
  The power of the indicator LEDs (+11V) is filtered only by an electrolytic capacitor and is not regulated.

3.2 Display module 1.775.310

PPM:

- Stereo and peak program meter with 24 LEDs each, adjustable sensitivity and brightness

Ranges:	+1 ...	+6 dB in 1 dB	steps (red)
	-6 ...	0 dB in 1 dB	steps (green)
	-18 ...	-7 dB in 2 dB	steps (green)
	-33 ...	-19 dB in 3 dB	steps (green)

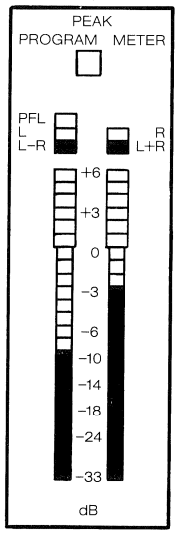
- The stereo peak meter indicates the level of the selected monitoring source. Σ 1 + 2, TAPE 1, TAPE 2, AUX RETURN are indicated in stereo mode while PFL and AUX SEND are indicated in mono mode. The mode is changed over automatically.

- Mode indication:

MONO	PFL	(red LED)
STEREO	L, R	(red LED)
Correlation	L - R, L + R	(red LED)

Correlator:

When you press the DISPLAY MODE [v] key, the left-hand instrument indicates the stereo side signal (L-R), the right-hand instrument the stereo center signal (L+R). By comparing these two readings it is possible to interpret the degree of correlation and consequently the mono compatibility. The degree of correlation indicates the similarity of the stereo channels.



Correlation	Indication	Interpretation
+1	L << R	The two channels (L, R) are identical, mono representation in the center.
0.3...0.7	L < R	Average stereo programs; indication on the left is 6...8 dB smaller than on the right.
0	L = R	Stereo signal with 90° phase offset or incoherent signals.
< 0	L > R	Signals with phase inversion, not mono compatible.
-1	L >> R	Both channels are identical but with 180° phase rotation.

The average stereo program produces a correlation degree of approx. 0.3 ... 0.7. Recordings with strong center signals (soloists) achieve even higher values. By contrast, a strong distribution of the instruments over the full base width reduces the correlation toward zero.
Negative values (indication on the left higher than on the right) are indicative of phase inversion in the system.

3.3 Input module 1.775.420

- The unbalanced STEREO input is taken via the balanced MIC and LINE BAL inputs to the input selector switch. (All switches in this module are implemented with electronic components)
- The BASS CUT filter can be connected to the microphone input. The input level potentiometers have a control range of -20 ...+16 dB. For the microphone input the level potentiometers are connected in series, resulting in a control range of -36...+36 dB. The signal is taken via the tone control to the VCAs which are driven by means of fader via the buffer. The control range of the VCA is -70...+10 dB.
- To achieve good phase synchronism of the stereo faders, the corresponding control elements are implemented with dbx-VCAs. The fader consists of a linear sliding potentiometer that supplies a DC voltage to the VCA. The latter is responsible for the conversion linear ÷ dB-linear. The input circuit is terminated with the panorama or balance potentiometer (STEREO UNBAL.) respectively. In mono mode the input circuits of both channels are used to form a balanced input, the remaining processing is subsequently performed in the left-hand channel.
  The PF signals (tapped before the fader) or AF signals (tapped after the fader) are taken via the summing amplifiers to the 0 dB isolation amplifiers at the output. The level of the signal connected via the AUX switch is influenced by the AUX potentiometer and taken to the AUX bus. The prefader listening signal is taken via the PFL switch to the PFL bus.

3.4 Master module 1.775.430

AUX Send

A supplementary input/output (AUX SEND, AUX RETURN) has been implemented on the master module so that an external device can be looped in. The SEND signal is taken from the AUX bus via summing amplifier to the potentiometer [k] which adjusts the output level. In addition the SEND signal can be connected from the level potentiometer to the monitor bus (AUX SEND, key [o]).

AUX Return

The stereo RETURN signal is taken via potentiometer [l] to the master bus. Also here it is possible to connect the signal to the monitor bus through the AUX RETURN key [p].

MASTER Fader

The summing amplifiers terminate the master bus. The master signal is also controlled by VCA stages that are implemented in the same manner as in the input module.

Outputs

The mixing console is equipped with two unbalanced (2×master, stereo) and four balanced outputs (2×master,stereo; 1×monitor, stereo; 1×AUX send, mono). The stereo master output [16] is electronically balanced, while the output [34] has been implemented floating and with transformers. The level of the outputs can be adjusted with the slide switch [14].

- BALANCED: +6 dBu/ +10 dBu/ +14 dBu
- UNBALANCED: 0 dBu/ +4 dBu/ +8 dBu

3.5 Monitor module 1.775.450

Talk back

With the built-in microphone [11], spoken information can be placed directly on the MASTER or AUX bus. After the amplifiers the output level can be influenced with the VOLUME potentiometer [w]. Both SLATE TALK BACK keys must be pressed for making an announcement on the MASTER BUS. If only one of these keys is pressed, the signal will not be through-connected. To make an announcement on the AUX bus it is necessary to press the AUX TALK BACK key.

Source selection

The source to be monitored can be selected by the push-buttons [n] ...[s]. This selection is valid as well for the speaker / headphones as for the monitor output. Monitoring has no influence on the master signal.

Internal monitor

The left and right monitor buses are connected via the summing amplifiers and the inverter stage to the headphones socket [aa] and the sum of these signals to the speaker [10]. The listening volume can be controlled with the potentiometer [z]. The built-in speaker is automatically muted when the headphones are plugged into the socket.

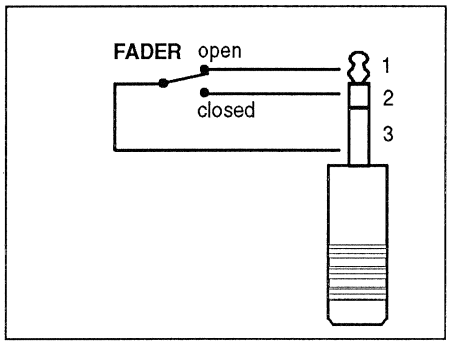
Monitor output

The monitor bus is connected to the summing amplifiers and from there via the volume control [t] to the monitor output [24]. When opening an inpit fader the MONITOR CUT function can mute the monitor output. This function can be set for each channel with the DIP coding switch [41] .
(cf. page E 1/6)

3.6 Input/output module 1.775.460

Fader start

- The fader start logic is identical for all input and master modules.
- The linear fader in the individual input channels or the master module generates a VCA control voltage between 0 and +5 V. This voltage is also used for controlling the fader start logic. It is amplified in IC 9 by a very high gain factor (×1000); for this reason even an extremely small voltage from the linear fader (short opening travel) suffices to create on IC 9 the voltage required for the start logic. Any further rise in the voltage will be limited by diode D5.
- When the linear fader is opened, the start relay becomes energized and drops out again when the fader is closed.
- The contacts of the FADER START socket (3.5mm jack) are controlled by the relay as depicted below. The common contact '3' and the ground connection of the mixer are isolated.



Corresponding fader **opened:**
- Contact 1 to contact 3
- Contact 2: not connected
- Contact 3: common

Corresponding fader **closed:**
- Contact 1: not connected
- Contact 2 to contact 3
- Contact 3: common

INPUT Tape 1 + 2

- A balanced high-level signal can be connected directly to the stereo input TAPE 1 or TAPE 2 (XLR sockets, balanced).
- The two tape inputs have only a monitor function. They cannot be fed to the master signal. When you press the keys [q] or [r] of the control monitor unit, the tape signal can be connected directly to the monitor bus and be monitored.

OUTPUT Tape 1 + 2

- The signals of the balanced type inputs are available unbalanced on the TAPE 1 and TAPE 2 outputs. From here they can be taken via a CINCH-CINCH connecting cable to any unbalanced input (STEREO).

The inputs and outputs TAPE 1 + 2 can be used universally as transformers for connecting balanced high-level sources to unbalanced hi-fi equipment.

Coupling of two A779

- For coupling two A779 mixing consoles, the BUS EXPANSION [33] sockets are to be interconnected. The position of the labelled plug on the connecting cable determines which console functions as the master or slave. From the slave console the master, AUX and PFL buses are connected directly to the corresponding buses of the master, i.e. the master faders are bypassed. The monitor cut function of the slave console cannot be used.

VCA option

- This mixing console is equipped for an external VCA control, e.g. for connection to the video editor BVE 900. For this purpose the D-type socket VCA-CONTROL [32] and an interface board (1.775.480.00) are to be installed (option 850: STI No. 20.779.850.00).

3.7 Control room monitor module 1.775.470

A signal source can be connected to the monitor bus via the keys [n] ... [s]. If PFL is selected, at least one PFL key of an input must be pressed. The following monitoring facilities exist: PFL, AUX send, AUX return, TAPE 1, TAPE 2, MASTER.
The VOLUME potentiometer [t] controls the level of the monitor output. The monitor speaker and the headphone volumes are adjusted with the PHONES potentiometer [z].

4 Disassembly Instructions

4.1 General information 1
4.1.1 Required tools 1
4.1.2 Reassembly 1

4.2 Housing 2
4.2.1 Separating the input/output modules from the mixing console 2
4.2.2 Bottom cover 2
4.2.3 Side panels 2
4.2.4 Rear housing panel (connector panel) 2

4.3 Electronic assemblies 4
4.3.1 Input/output board 4
4.3.2 Power supply 4
4.3.3 Input board 4
4.3.4 Master board 6
4.3.5 Microphone board 6
4.3.6 Control room monitor board 6
4.3.7 Monitor board and speaker 6
4.3.8 Display module 8
4.3.9 Power transformer 8
4.3.10 Interconnection board 8
4.3.11 Primary fuse 8
4.3.12 Secondary fuses 8

4 Disassembly instructions

4.1 General Information

Caution: Disconnect the mixing console from the AC power source before you remove any housing parts and electrical assemblies!

Note: Please refer to MOS handling instructions located at the beginning of this manual before you remove or install any electronic components!

4.1.1 Required Tools

- ❑ 1 Phillips screwdriver, size 1
- ❑ 1 Phillips screwdriver, size 2
- ❑ 1 Phillips screwdriver „Pozidriv", size 1
- ❑ 1 Phillips screwdriver „Pozidriv", size 2
- ❑ 1 Screwdriver, size 00
- ❑ 1 Pair of tweezers,
- ❑ 1 Pair of flatnose pliers,
- ❑ 1 ESE workplace kit, Order No. **20.020.001.44**

Recommendation: The bench surface should be padded in order to prevent damaging the mixing console or marring of the housing surfaces.

4.1.2 Reassembly

The unit is reassembled analogously by performing the disassembly instructions in the reverse order and the specific reassembly information.

4.2 Housing

4.2.1 Separating the input/output modules from the mixing console

- Unfasten the four fixing screws [1], Fig. 1.
- Lightly lift the input/output module on the connector side and separate the three connecting cables (four with optional VCA control).
- Pull out the module toward the back.

4.2.2 Bottom cover

- Unfasten the 3 screws [2], Fig. 2, on the bottom of the housing and remove the cover.

4.2.3 Side panels

- Unfasten 2 screws [3] each, Fig. 3.

4.2.4 Rear housing panel (connector panel)

- Remove the upper trim strip [4], Fig. 3 by unfastening 3 screws [5].
- Separate the input/output module from the mixing console (Section 4.2.1).
- Remove the bottom panel (Section 4.2.2).
- Remove the side panels (Section 4.2.3).
- Remove the power supply (Section 4.3.2).
- Separate the following connectors:
  6 connections: input board --> interconnection board
  1 connection: master board --> interconnection board
  1 connection: monitor board --> interconnection board
  1 connection: display board --> interconnection board
- Unfasten 6 screws [6], Fig. 3, on the rear panel.
- The rear housing panel can be carefully removed together with the interconnection board.

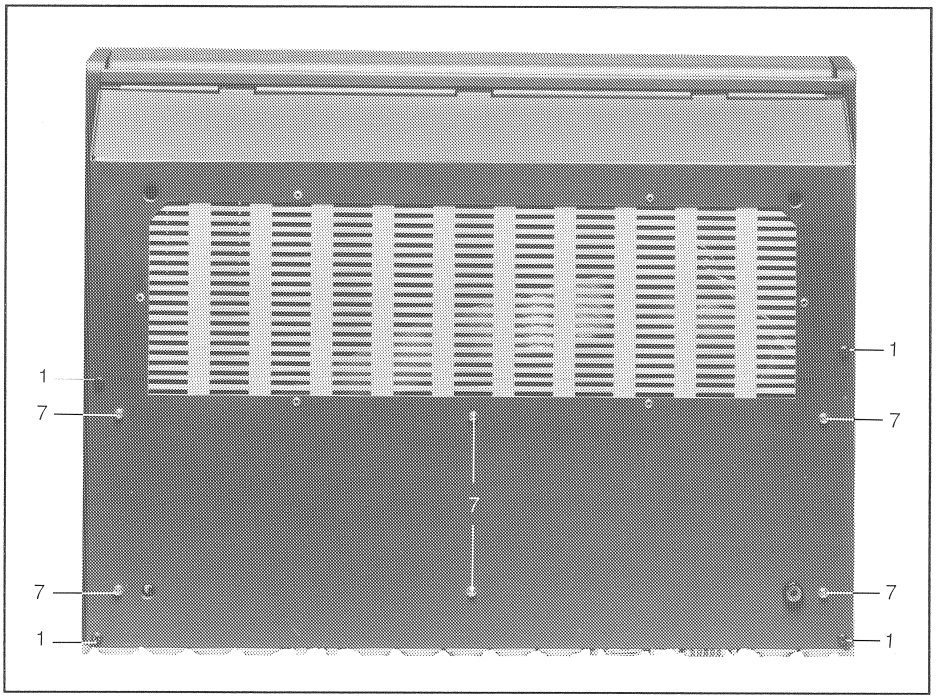


Fig. 1

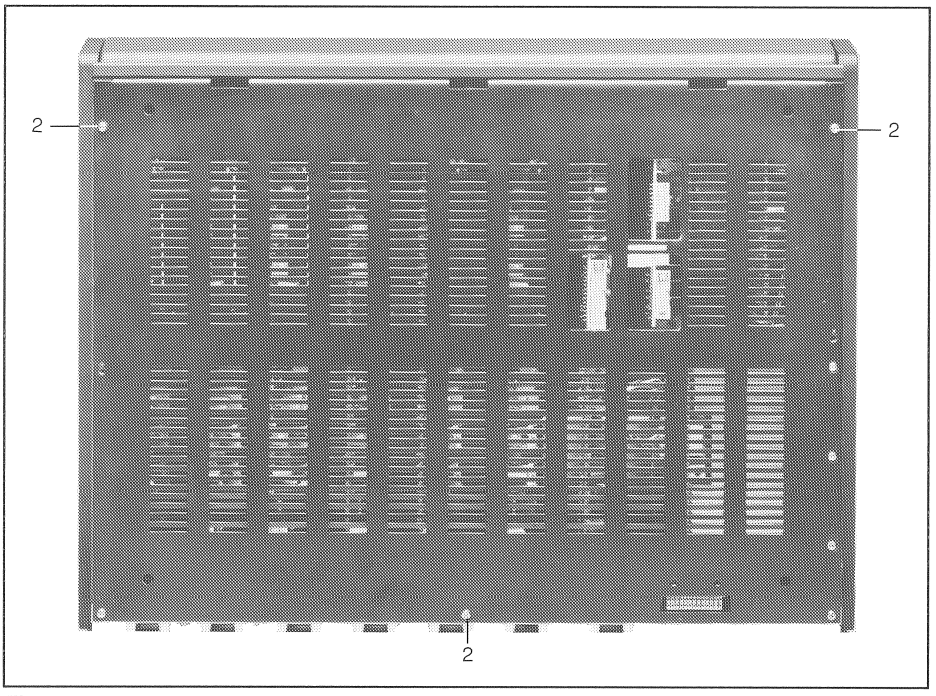


Fig. 2

4.3 Electronic assemblies

4.3.1 Input/output board 1.775.460

- Separate the input/output module from the mixing console (Section 4.2.1).
- Unfasten 6 screws [7], Fig. 1.
- With a screwdriver size 00 unfasten the housings of the XLR connectors and sockets. (Insert the screwdriver into the 4th hole and release the catch by turning the screwdriver lightly counterclockwise).
- Lightly loosen the two screws [8], Fig. 4 on each XLR flange.
- Remove the screw [9], Fig. 4.
- Carefully pull the input/output board toward the back and out of the housing.

4.3.2 Power supply 1.775.490

- Separate the input/output module from the mixing console (Section 4.2.1).
- Remove the bottom cover (Section 4.2.2).
- Separate the following connections:
  1 connection: power supply --> display module
  1 connection: monitor board --> interconnection board
  1 connection: power supply --> power transformer
- Unfasten 3 screws [10], Fig. 5
- Carefully pull the power supply out of the interconnection board.

4.3.3 Input board 1.775.420

- Remove the control knobs of the module to be removed. The AUX knob cannot be simply lifted off like the other knobs, it must first be unfastened with a screwdriver after the yellow cover has been removed.
- Separate the input/output module from the mixing console (Section 4.2.1).
- Remove the bottom cover (Section 4.2.2).
- Separate the following connections:
  1 connection: input board --> interconnection board
  1 or 2 connections: input board --> input or master board
- Unfasten 3 screws [11], Fig. 5.

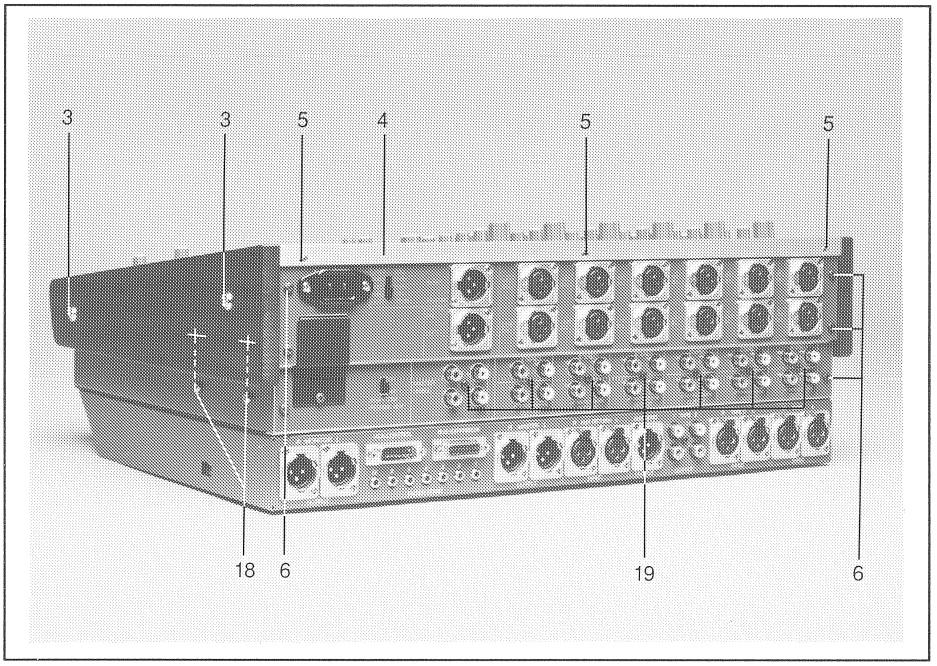


Fig. 3

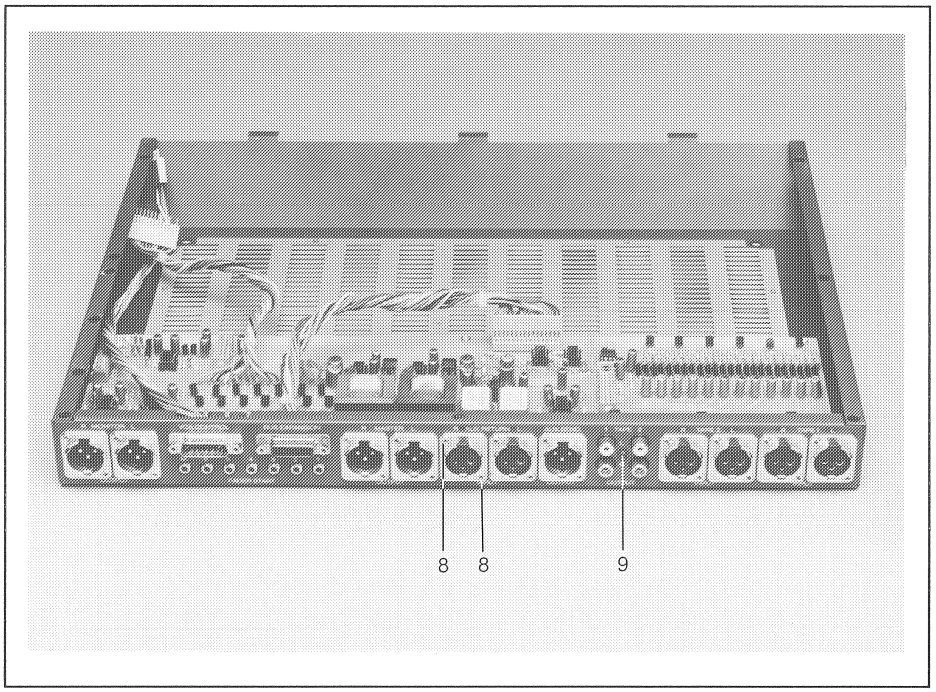


Fig. 4

4.3.4 Master board 1.775.430

- Remove the control knobs of the master module (they can be simply pulled off).
- Separate the input/output module from the mixing console (Section 4.2.1).
- Remove the bottom cover (Section 4.2.2).
- Separate the following connections:
  1 Connection: master board --> interconnection board
  1 Connection: master board --> Input board
  1 Connection: master board --> monitor board
  1 Connection: master board --> control room monitor board
- Unfasten 2 screws [12], Fig. 5.

4.3.5 Microphone board 1.775.440

- Separate the input/output module from the mixing console (Section 4.2.1).
- Remove the bottom cover (Section 4.2.2).
- Unfasten 1 screw [13], Fig. 5.
- Carefully pull the microphone board out of the monitor module.

4.3.6 Control room monitor board 1.775.470

- Pull off the speaker knob [t].
- Separate the input/output module from the mixing console (Section 4.2.1).
- Remove the bottom cover (Section 4.2.2).
- Separate the following connection:
  1 Connection: control room monitor board --> master board (Additional connector if optional VCA control is installed).
- Unfasten 2 screws [14], Fig. 5.

4.3.7 Monitor board 1.775.450 and speaker

- Remove the control knobs of the monitor module. They can be simply pulled off.
- Separate the input/output module from the mixing console (Section 4.2.1).
- Remove the bottom cover (Section 4.2.2).
- Remove the power supply (Section 4.3.2).
- Remove the microphone board (Section 4.3.5).
- Separate the following connections:
  1 Connection: monitor board --> master board
  1 Connection: monitor board -> interconnection board
  1 Connection: monitor board -> power transformer
- Unfasten 2 screws [15], Fig. 5, and [15], Fig. 6.
- Unfasten the 3 screws [16], Fig. 16, and remove the clamping sleeves of the bolts.
- Remove the monitor board together with the speaker.

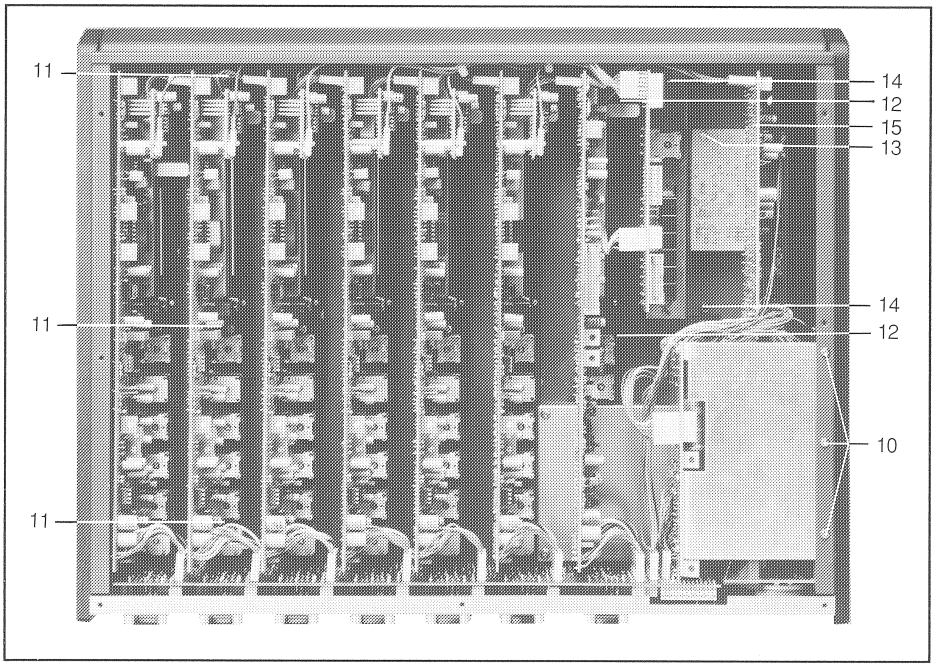


Fig. 5

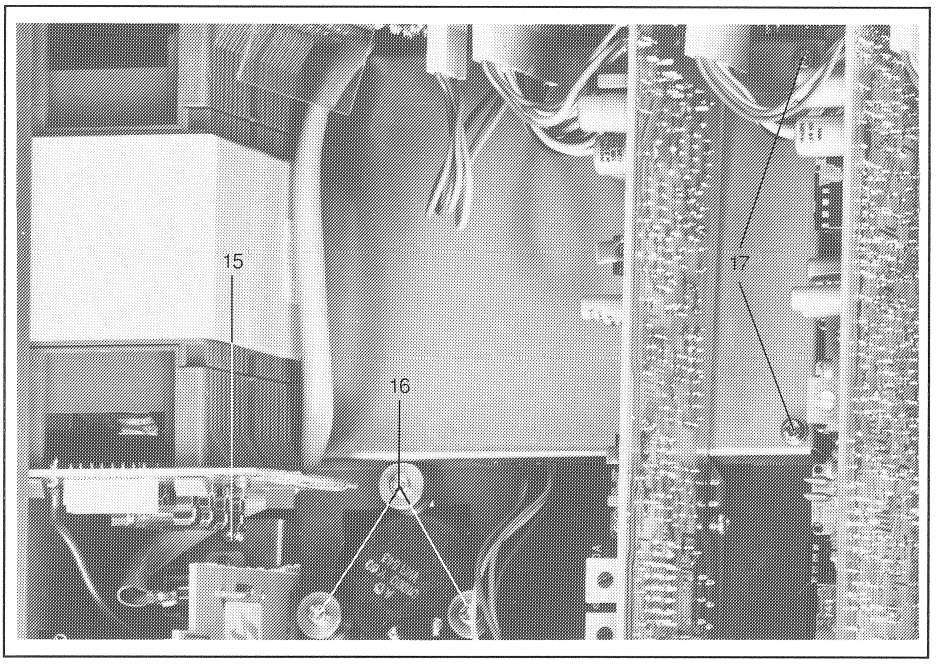


Fig. 6

4.3.8 Display Module 1.775.310

- ❑ Separate the input/output module from the mixing console (4.2.1).
- ❑ Remove the bottom panel (4.2.2).
- ❑ Remove the POWER SUPPLY (4.3.2).
- ❑ Remove the master module (4.3.4).
- ❑ Remove the mains transformer (Section 4.3.9).
- ❑ Unfasten 2 screws [17], (fig. 6). The screening plate and the display module can now be removed.

4.3.9 Mains Transformer

- ❑ Separate the input/output module from the mixing console (4.2.1).
- ❑ Remove the bottom panel (4.2.2).
- ❑ Remove the POWER SUPPLY (4.3.2).
- ❑ Remove the right-hand side panel (4.3.2).
- ❑ Open the cover to the line voltage selector.
- ❑ Separate the following connections:
  2 Connections: mains transformer → power inlet
  2 Connections: mains transformer → MONITOR BOARD
- ❑ Unfasten 4 screws [18], (fig. 3); two of the screws are located below the side panel.

4.3.10 INTERCONNECTION BOARD 1.775.320

- ❑ Separate the input/output module from the mixing console (4.2.1).
- ❑ Remove the bottom panel (4.2.2).
- ❑ Remove the rear housing panel (connector panel) (4.2.4).
- ❑ With a screwdriver size 00 unfasten the housings of the XLR connectors and sockets (insert the screwdriver into the center hole and release the catch by turning the screwdriver lightly counterclockwise.
- ❑ Unfasten 7 screws [19], (fig. 3), and remove the bottom cover.

Reinstallation instruction: Make sure that the top cover is not twisted when you reinstall it.

4.3.11 Primary Fuse

- ❑ Open the cover of the line voltage selector.
- ❑ The primary fuse is now accessible.

4.3.12 Secondary Fuses

- ❑ Separate the input/output unit from the mixing console (Section 4.2.1).
- ❑ Remove the bottom cover (Section 4.2.2).
- ❑ Remove the POWER SUPPLY (Section 4.3.2).
- ❑ The secondary fuses are now accessible.
  (refer to component placement diagrams 1.775.210 / 220)

5. Alignment instructions

5.1 General information 1
5.1.1 Demagnetizing the microphone input transformers 2
5.1.2 Required measuring instruments 2
5.1.3 Preparatory steps 3

5.2 Power supply 3
5.2.1 Phantom supply 3
5.2.2 +15 V supply 3
5.2.3 -15 V supply 3

5.3 Input module 4
5.3.1 Input level 4
5.3.2 Input distortion 4
5.3.3 Input and master fader 5

5.4 Master board 5
5.4.1 Master distortion 5

5.5 Display module 6
5.5.1 Peak program meter 6

5.6 Measuring the audio data 6
5.6.1 Harmonic distortion 6
5.6.2 Output level and channel balance 7
5.6.3 Frequency response 7
5.6.4 Channel separation 8
5.6.5 Signal-to-noise ratio 8

5 Alignment instructions

5.1 General information

Level definitions

The levels are specified in dBu:

0 dBu ≙ 0.775 $V_{eff.}$

- The level specifications in dBu are based on a fixed voltage value as the reference quantity:
- The reference quantity 0.775 V of the relative voltage level in dBu has been adopted from the value definition of the absolute voltage level in dBu, however, without being tied to the definition (600 Ω/1 mW).

Nominal level in dBu:

Nominal level = studio level at maximum recording volume

- Typical nominal levels are:

+6	dBu	=	1.55 $V_{eff.}$
+10	dBu	=	2.45 $V_{eff.}$
+14	dBu	=	3.88 $V_{eff.}$

Caution:
Electric shock hazard when the mixer is open! Certain components are energized with line voltage.

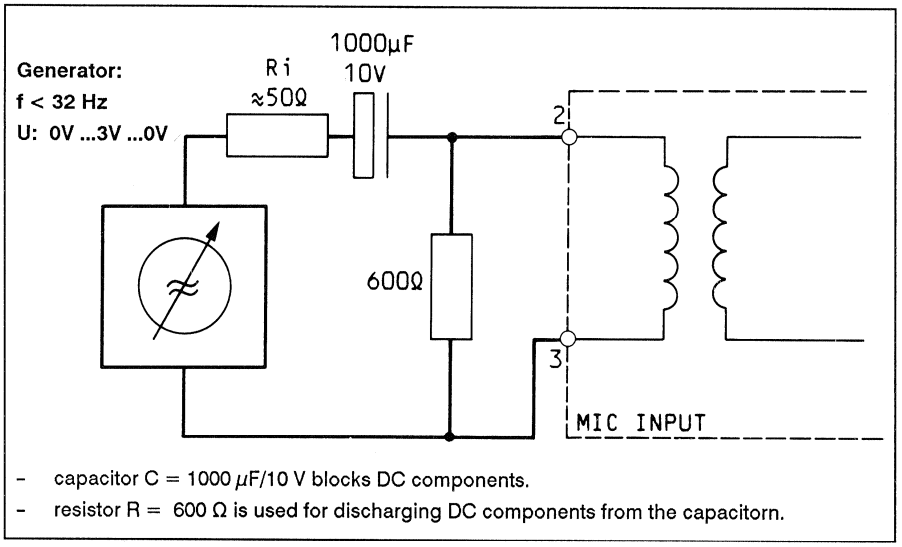
- Modules supplied by STUDER REVOX can be installed without prior alignment. Recalibration of the mixing console is necessary only after alterations to the individual modules have been made. This mixing console generation requires no scheduled maintenance. The only maintenance required is the occasional demagnetization of the input transformers as described below.

5.1.1 Demagnetizing the microphone input transformers

- Prohibited connection of unbalanced input sources or unintentional short-circuit to chassis of the a/b audio conductors of the microphone inputs with connected phantom supply drive the input transformers into saturation and cause permanent magnetization (remanence). This manifests itself in the form of significantly higher harmonic distortion and so-called microphonic noise: light mechanical action on the mixing console, e.g. tapping it, causes an audible modulation via the outputs even when the microphone inputs are not active.
- Remanence can also accumulate over extended operating periods.
- All microphone inputs should, therefore, be demagnetized periodically and prior to calibration:

Procedure:

- Switch off the mixing console. (To protect the connected speakers).
- Feed a frequency of <32 Hz from an AF generator equipped via an isolating capacitor to the microphone input.



- capacitor C = 1000 µF/10 V blocks DC components.
- resistor R = 600 Ω is used for discharging DC components from the capacitorn.

- Increase the supply level gradually from 0 V to 3 V.
- S l o w l y decrease the supply level to 0 V.

5.1.2 Required measuring instruments

- Digital voltmeter
- Audio voltmeter, Rz ≥ 10 kΩ
- Audio generator, Rs ≤ 200 Ω
- Distortion meter

5.1.3 Preparatory steps

- Unplug the power cord.
- Separate the input/output module from the mixing console (Section 4.2.1).
- Remove the bottom cover (Section 4.2.2).
- Set all faders to the $-\infty$ position, the tone controls (bass and treble) to the center position, and the input selectors to the STEREO position.
- Position the mixing console upright on one of its side panels.
- Reconnect the mixing console to the AC outlet.

5.2 Power supply 1.775.490

5.2.1 Phantom supply

- Remove the power supply 1.775.490 (Section 4.3.2).
- Do not separate the connection power supply → power transformer.
- Connect the digital voltmeter to the pin 1 (0 V) of connector P2 and pin 5 (+48 V) of P2.
- Switch on the mixing console.
- With the trimmer potentiometer **RA3** adjust the voltage to +48 V.
- Switch off the mixing console and reinstall the power supply.

5.2.2 +15 V supply

- Connect the digital voltmeter on the master module 1.775.430 to J1 pin 2 (0V) and J1 pin 1.
- Switch on the mixing console.
- Align the voltage on the power supply 1.775.490 with the aid of the trimmer potentiometer **RA2** to +340 mV ±1 mV.

5.2.3 -15 V supply

- Connect the digital voltmeter on the master module 1.775.430 to J1 pin 2 (0V) and J1 pin 9.
- Switch on the mixing console.
- Align the voltage on the power supply 1.775.490 with the aid of the trimmer potentiometer **RA1** to -65 mV ±0.5 mV.

5.3 Input module 1.775.420

5.3.1 Input level

- Turn the input selector [a] to the STEREO position.
- Turn the input level control [b] to the 0 dB position.

Stereo input left

- Feed 1 kHz/0 dBu (775 $mV_{eff.}$) from the audio generator to the unbalanced STEREO L [ad] input left.
- Connect the audio voltmeter to the PRE FADER [af] output (range 0 dB/1 V).
- With the trimmer potentiometer **RA11** align the PRE FADER [af] output to -6dBu (388 $mV_{eff.}$).

Stereo input right

- Feed 1 kHz/0 dBu (775 $mV_{eff.}$) from the audio generator to the unbalanced STEREO R [ad] input right.
- With the trimmer potentiometer **RA12** align the PRE FADER [af] output to -6 dBu (388 $mV_{eff.}$).

Mono input

- Turn the input selector [a] to the MONO position.
- Feed 1 kHz/+6 dBu (1.55 $V_{eff.}$) from the audio generator to the unbalanced line input MONO [ac].
- With the trimmer potentiometer **RA13** align the PRE FADER [af] output to 0 dBu (775 $mV_{eff.}$).

5.3.2 Input distortion

- Turn the input selector [a] to the STEREO position.
- Turn the input level control [b] to 0 dB.

Left channel

- Feed 1 kHz/0 dBu (775 $mV_{eff.}$) from the audio generator to the STEREO L [ad] input left.
- Connect the voltmeter to the AFTER FADER [ae] output (range 0 dB/1 V).
- With the linear fader [h] align to -6 dBu (388 $mV_{eff.}$).
- Connect the distortion meter to the AFTER FADER [ae] output.
- With the trimmer potentiometer **RA4** align for minimum distortion.

Right channel

- Feed 1 kHz/0 dBu (775 $mV_{eff.}$) from the audio generator to the STEREO R [ad] input right.
- Connect the voltmeter to the AFTER FADER [ae] output (range 0 dB/1 V).
- With the linear fader [h] align to -6 dBu (388 $mV_{eff.}$).
- Connect the distortion meter to the AFTER FADER [ae] output.
- With the trimmer potentiometer **RA3** align for minimum distortion.

5.3.3 Input fader

- Feed 1 kHz/0 dBu (775 $mV_{eff.}$) from the audio generator to the STEREO L [ad] input left.
- Connect the voltmeter to the AFTER FADER [ae] output (range 0 dB/1 V).
- Turn the input selector [a] to the STEREO position.
- Set the linear fader [h] to the 0 dB position.
- With the input level control [b] align to 0 dBu (775 $mV_{eff.}$).
- Set the linear fader to the -60 dB position and with the trimmer potentiometer **RA14** align the AFTER FADER [ae] output to -60 dBu.

5.4 Master module 1.775.430

5.4.1 Master fader

- Feed 1kHz/0dBu (775 $mV_{eff.}$) to the unbalanced input STEREO L [ad].
- Set the linear fader [h] to the 0 dB position.
- Connect the voltmeter to the UNBAL [17] master output (range 0 dB/1 V).
- Set the master fader [m] to the 0 dB position.
- With the input level control [b] align to 0 dBu (775 $mV_{eff.}$).
- Set the linear fader to the -60 dB position and with trimmer potentiometer **RA6** align to -60 dB.

5.4.2 Master distortion

- The six input modules must be aligned first. The linear faders of the inputs [2] ... [6] must be set to the $-\infty$ position.

Left channel

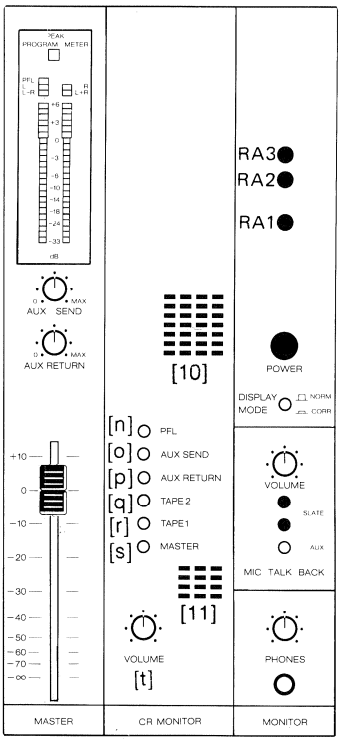
- Feed 1 kHz/0 dBu (775 $mV_{eff.}$) from the audio generator to the STEREO L [ad] input left.
- Connect the voltmeter to the UNBAL L [17] master output left (range 0dB/1V).
- Turn the input selector [a] to the STEREO position.
- Set the input fader and the master fader [h and m] to the 0 dB position.
- With the input level control [b] align to 0 dBu (775 $mV_{eff.}$).
- Connect the distortion meter to the UNBAL L [17] master output left.
- With the trimmer potentiometer **RA1** align for minimum distortion.

Right channel

- Feed 1 kHz/0 dBu (775 $mV_{eff.}$) from the audio generator to the STEREO R [ad] input right.
- Connect the voltmeter to the UNBAL R [17] master output right (0dB/1V).
- Turn the input selector [a] to the STEREO position.
- Set the input fader and the master fader [h and m] to the 0 dB position.
- With the input level control [b] align to 0 dBu (775 $mV_{eff.}$).
- Connect the distortion meter to the UNBAL R [17] master output right.
- With the trimmer potentiometer **RA2** align for minimum distortion.

5.5 Display module 1.775.310

5.5.1 Peak program meter



- With the audio generator feed 1 kHz/0 dBu (775 $mV_{eff.}$) to the STEREO L [ad] input left.
- Connect the voltmeter to the MASTER OUTPUT BALANCED [16] left (range 10 dB/3 V).

- Turn the input selector [a] to the STEREO position.
- Set the input fader and the master fader [h and m] to the 0 dB position.
- Set the slide switch for the master output level [14] to the +6 dBu position.
- With the input fader [b] align to +6 dBu (1.55 $V_{eff.}$).
- Select the MASTER key [s] on the monitor selector.

- With the trimmer potentiometer **RA3** (accessible from the front), adjust the left-hand bargraph in such a way that the 0 dB LED lights up.

- Align the right-hand bargraph in the same way with **RA2**.

- The brightness of the indication can be adjusted with **RA1**. The contrast to the ambient light is additionally controlled by a light-sensitive resistor.

5.6 Measuring the audio Data

- Harmonic distortion
- Output level
- Frequency response
- Channel separation
- Signal-to-noise ratio

5.6.1 Harmonic distortion

- With the audio generator feed 1 kHz/0 dBu (775 $mV_{eff.}$) to the unbalanced STEREO L [ad] input left of the first input module.
- Connect the voltmeter to the UNBAL L [17] master output left (range 0 dB/1 V).
- Set the input selector [a] to the STEREO position.
- Set the input fader and the master fader [h and m] to the 0 dB position.
- With the input level control [b] align to 0 dBu (775 mV).
- Connect the distortion meter to the UNBAL L [17] master output left.

- The measured distortion should not exceed **0.03%**.

- Measure the harmonic distortion of the right channel accordingly.

5.6.2 Output level and channel balance

- With the audio generator feed 1 kHz/0 dBu (775 $mV_{eff.}$) to the unbalanced STEREO L [ad] input left of the first input module.
- Connect the voltmeter to the MASTER OUTPUT BALANCED [16] left (range 10 dB/3 V).
- Set the input selector [a] to the STEREO position.
- Set the input fader and the master fader [h and m] to the 0 dB position.
- Set the slide switch [14] for the master output level to the 6 dBu position.
- With the input level control [b] align to +6 dBu (1.55 $V_{eff.}$).
- The corresponding values must be measured with the slide switch [14] in the +10 dBu and +14 dBu positions.

- Repeat the measurements with the right-hand channel. The **channel balance** should be **better than 1.5 dB**.

5.6.3 Frequency response

- With the audio generator feed 1 kHz/0 dBu (775 $mV_{eff.}$) to the unbalanced STEREO L [ad] input left of the first input module.
- Connect the voltmeter to the MASTER OUTPUT BALANCED [17] left (range 0 dB/1 V).
- Set the input selector [a] to the STEREO position.
- Set the input fader and the master fader [h and m] to the 0 dB position.
- Set the slide switch [14] for the master output level to the 6 dBu position.
- With the input level control [b] align to 6 dBu (1.55 $V_{eff.}$).
- Vary the audio generator frequency from 20 Hz to 20 kHz. The output level should not fluctuate by more than **±1 dB**.

- Repeat the measurement with the right-hand channel.

5.6.4 Channel separation

- With the audio generator feed 1 kHz/0 dBu (775 $mV_{eff.}$) to the unbalanced STEREO L [ad] input **left** of the first input module.
- Terminate the unbalanced STEREO R [ad] input right with a **1 kΩ resistor**.

- Connect the voltmeter to the MASTER OUTPUT BALANCED [16] left (range 10 dB/3 V).
- Set the input selector [a] to the STEREO position.
- Set the input fader and the master fader [h and m] to the 0 dB position.
- Set the slide switch [14] for the master output level to the 6 dBu position.
- With the input level control [b] align to +6 dBu (1.55 $V_{eff.}$).

- Connect the voltmeter to the MASTER OUTPUT BALANCED [16] **right**.
- The measured **cross talk** should be **> 50 dB**.

- Repeat the measurement with swapped channels.
- If the input fader [h] is set to the -∞ position, the **switch-off attenuation** is **> 85 dB**. If in place of the input fader the master fader [m] is set to the -∞ position, the switch-off attenuation is >90 dB.

5.6.5 Signal-to-noise ratio

- With the audio generator feed 1 kHz/0 dBu (775 $mV_{eff.}$) to the unbalanced STEREO L [ad] input left of the first input module.
- Connect the voltmeter to the MASTER OUTPUT BALANCED [16] left (range 10 dB/3 V).
- Set the input selector [a] to the STEREO position.
- Set the input fader and the master fader to the 0 dB position.
- Set the slide switch [14] for the master output level to the 6 dBu position.
- With the input level control [b] align to +6 dBu (1.55 $V_{eff.}$).

- Connect the voltmeter to the MASTER OUTPUT BALANCED [16] right.
- Disconnect the audio generator from the input and terminate the input with a **1 kΩ resistor**.

- The measured **signal-to-noise ratio** should be **> 100 dB**.

- Repeat the measurement with the right-hand channel.

Schemata / Circuit Diagrams

A779 / MR8 (common diagrams)

Abbreviations 2

Block Diagram Mixer 3

Mains Transformer 1.775.200.81 4

Distributor Primary 1.775.210.00 4

Distributor Secondary 1.775.221.00 5

Power Supply Unit 1.775.490.00 (A779) 6

Power Supply Unit 1.775.491.00 (MR8) 6

Input Unit 1.775.420.81 10

Interface Unit 1.775.485.00 14

Master Unit 1.775.430.81 16

Monitor Unit 1.775.451.00 20

A779 (specific diagrams)

Input Output Unit 1.775.460.00 24

C.R. Monitor Unit 1.775.470.00 33

Display Unit 1.775.310.00 34

Connection Unit 1.775.410.00 39

MR8 (specific diagrams)

Input Output Unit 1.775.070.00 42

C.R. Monitor Unit 1.775.470.00 51

Display Unit 1.775.311.00 52

Connection Unit 1.775.060.00 57

D-Type Connector 1.775.035.15 60

ABBREVIATIONS

COMPONENTS

B	bulb	LC	LC Display
BA	battery, accumulator	LS	loudspeaker
BR	optocoupler B->LDR	M	motor
C	capacitor	ME	meter
D	diode, DIAC	MIC	microphone
DL	LED light-emit. diode	MP	mechanical part
DLQ	optocoupler LED->QP	P	plug (male)
DLR	optocoupler LED->DLR	PU	pick up
DLZ	LED array, 7s.display	Q	transistor
DP	photodiode	QP	phototransistor
DZ	rectifier	R	resistor
EF	headphones	RP	photosensitive resist.
F	fuse	RT	temp. sensit. resist.
FL	filter	RZ	resistor array
H	head (sound-/erase-)	S	switch
HC	hybrid circuit	T	transformer
HE	hall element	TL	delay line
IC	integrated circuit	TP	test point
J	jack (female)	W	wire, stranded wire
JS	jumper	X	socket, holder
K	relay, contactor	XB	lamp socket
L	coil, inductance	XF	fuse holder
LC	LC Display	XIC	IC socket
LS	loudspeaker	Y	quartz, piezo element
L	coil, inductance	Z	network, array

SPECIFICATIONS OF ELEMENTS

CC	Carbon film	PCF	Carbon film
Cer	Ceramic	Petp	Polyester
Cerm	Cermet	Pme	Metallised polyester
El	Electrolytic	PP	Polypropylen
Mf	Metal film	Si	Silicon
MP	Metal paper	Tri	Trimmer

MANUFACTURER OF COMPONENTS

ADI	Analog Devices Inc.	RCA	Radio Corporation
AMP	Ampex	---	RIVA
Com	Componex	SDS	
Dam	Dam Electronic	Sie	Siemens
Del	Delevan	SIG	Signetics
Ex	Exar	---	Stetner
GI	General Instruments	---	Stocko
Ha	Harris	St	Studer
Hi	Hirschmann	Sx	Siliconix
ITT	Intermetall, Valvo	Ti	Texas Instruments
Mot	Motorola	TDK	TDK
NEC	Nippon Electr. Corp.	---	Toko
NS	Nat. Semiconductors	To	Toshiba
Ph	Philips	Vi	Videlec
Ra	Raytheon		

POWERS OF TEN

Milli-	Micro-	Nano-	Pico-	Femto-	Tera-	Giga-	Mega-	Kilo-
m	μ	n	p	f	T	G	M	k
10^{-3}	10^{-6}	10^{-9}	10^{-12}	10^{-15}	10^{12}	10^{9}	10^{6}	10^{3}

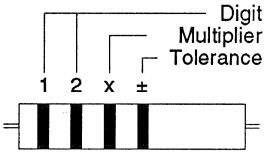
CODE LETTERS AND COLORS

RESISTORS

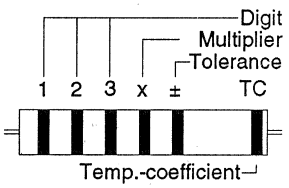
COLOR	DIG	x	±	TC
gold	-	0,01	5%	-
silver	-	0,1	10%	-
black	0	1	-	-
brown	1	10	1%	100*10-6/K
red	2	100	2%	50*10-6/K #
orange	3	1k	-	15*10-6/K
yellow	4	10k	-	25*10-6/K
green	5	100k	0,5%	-
blue	6	1M	0,25%	-
violet	7	10M	0,1%	-
grey	8	-	-	-
white	9	-	-	-

either no mark for TC, or red.
1 black ring only: 0 Ω(= bridge)

■ SERIES E6/E12/E24



■ SERIES E48



CAPACITORS

The tolerance category is sometimes specified by a letter after the rated capacitance.

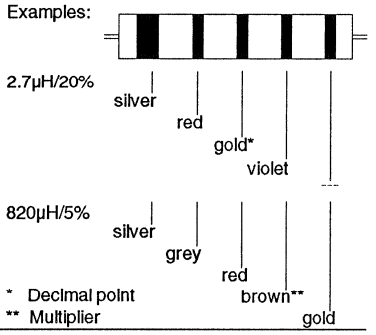
D = 0,5% J = 5%
F = 1% K = 10%
G = 2% M = 20%

MOLDED RF COILS

A wide silver-colored ring and 4 thin, differently colored rings identify molded RF coils. The wide silver ring indicates the start of the counting direction. The second, third, and fourth ring indicate the inductance in micro Henry (μH), where two of the three rings represent the numeric value, the third one either a multiplier or the decimal point. In the latter case it has a golden color. The fifth ring identifies the tolerance in percent (±).

COLOR	DIG	x	±
black	0	1	-
brown	1	10	1%
red	2	100	2%
orange	3	10^3	-
yellow	4	10^4	-
green	5	10^5	0.5%
blue	6	10^6	-
violet	7	10^7	-
grey	8	10^8	-
white	9	10^9	-
gold	.	-	5%
silver	-	-	10%
any		-	20%

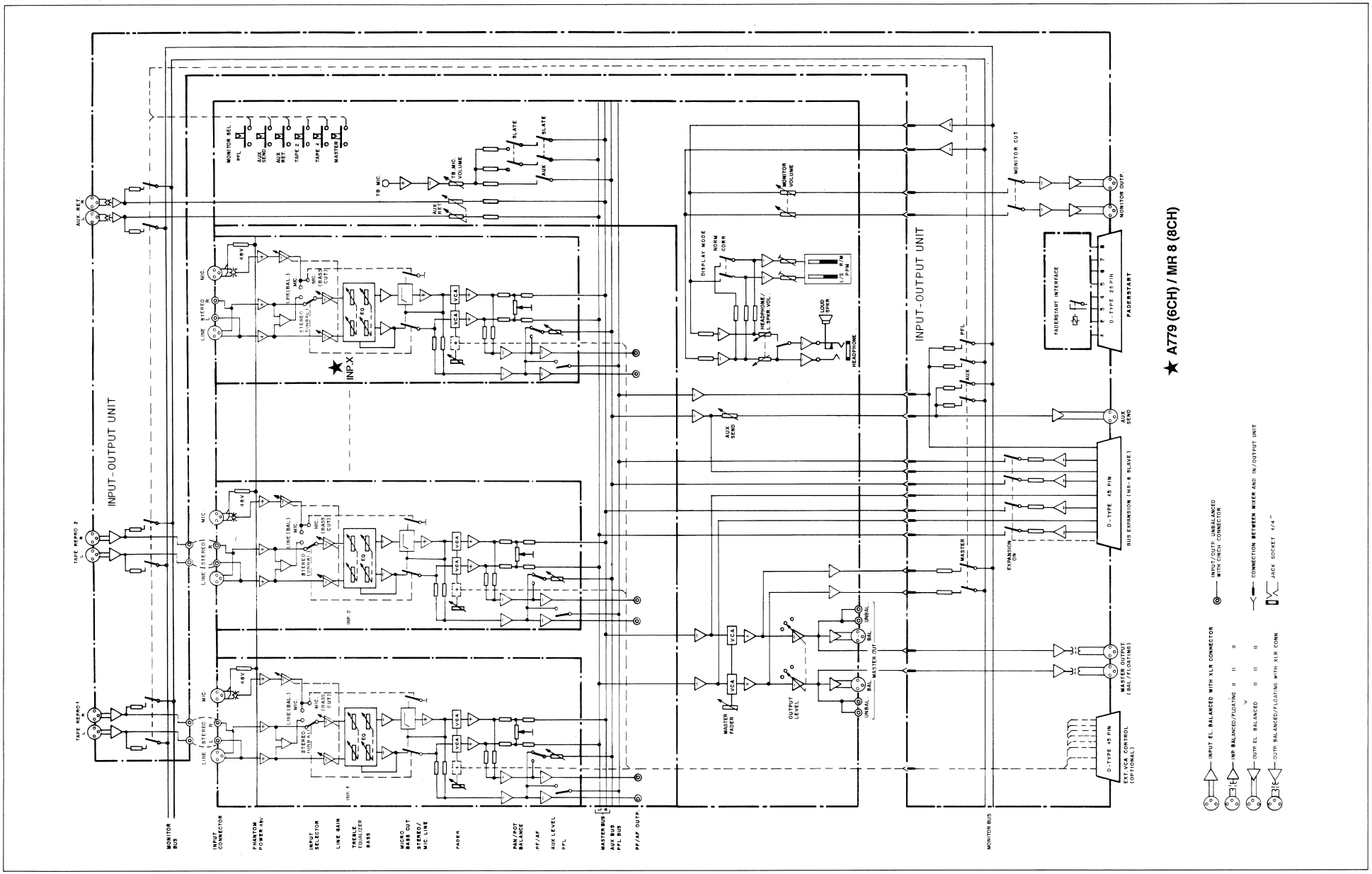
Examples:



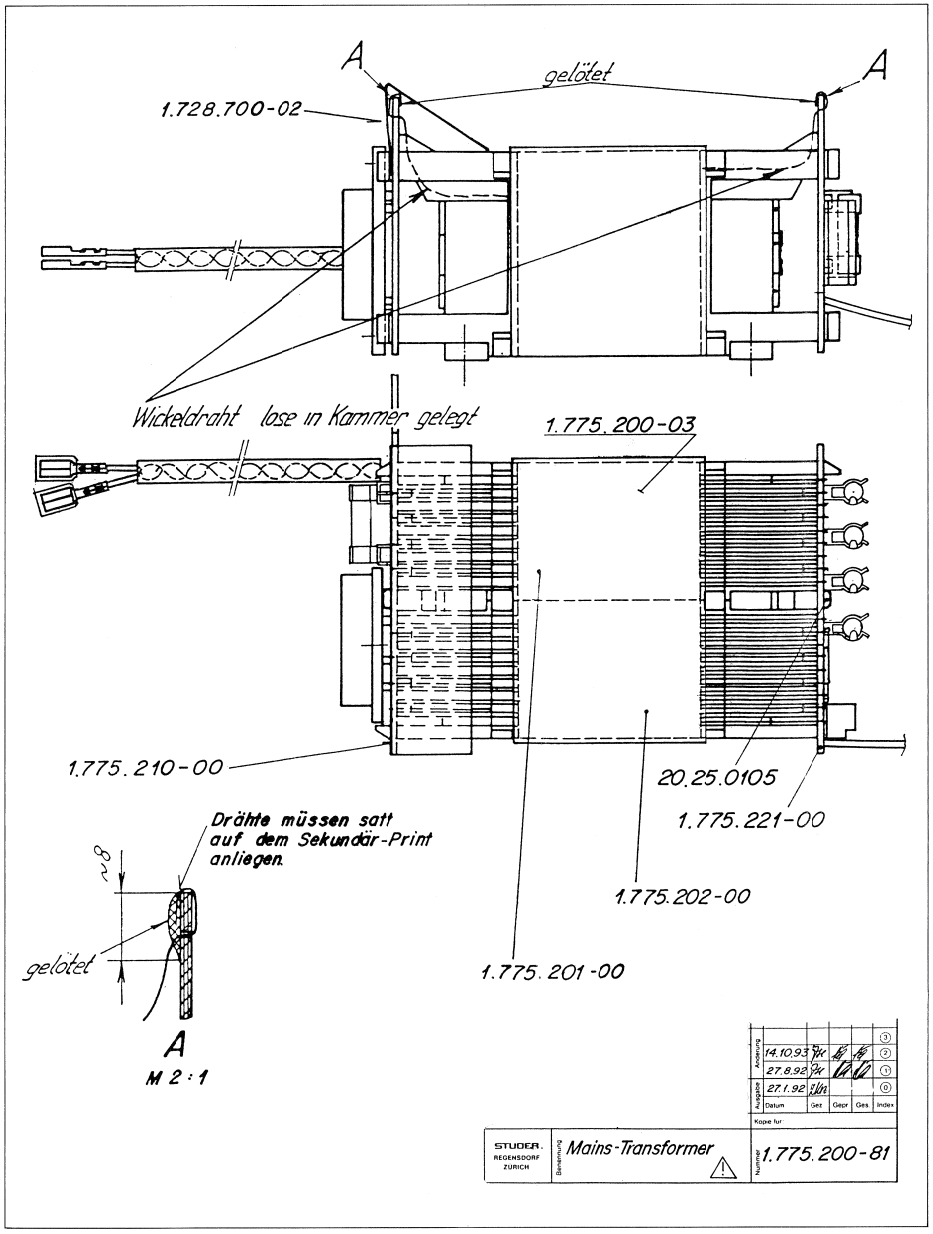
NOTE:

Some of the order numbers contained in the following lists are used for production purposes only. The reference numbers may deviate for service purposes.
Electrical components such as resistors, capacitors, transistors, IC's etc. having no special unit-specific number and not being identified respectively should be purchased locally.

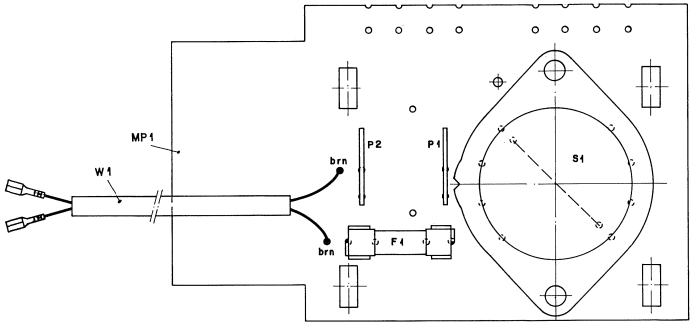
BLOCK DIAGRAM MIXER A779 / MR 8



MAINS TRANSFORMER 1.775.200.81
- DISTRIBUTOR PRIMARY 1.775.210.00
- DISTRIBUTOR SECONDARY 1.775.221.00



DISTRIBUTOR PRIMARY 1.775.210.00



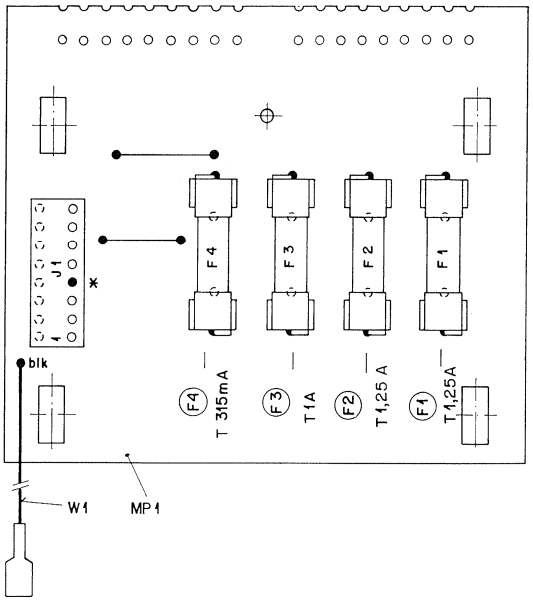
Änderung
Ausgabe 13.6.86 A Ho
Datum Gez Gepr Ges Index
Kopie für
STUDER REGENSDORF ZÜRICH
Benennung DISTRIBUTOR
Nummer 1.775.210-00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	F.....1	51.01.0112 T315mA	Fuse	
	MP....1	1.775.210.11	DISTRIBUTOR PCB PRIM.	
	P.....1	54.02.0328 2.8mm	AMP	
	P.....2	54.02.0328 2.8mm	AMP	
	S.....1	53.03.0131	Voltage Selector	
	W.....1	1.775.210.93	Wire List	
	X.....1	53.03.0142	Fuse Holder	
	X.....2	53.03.0142	Fuse Holder	

1.775.210.00 DISTRIBUTOR PRIM. UL 86/05/0600

EDITION: 20.2.1995

DISTRIBUTOR SECONDARY 1.775.221.00



* Codierung : Schaltdraht 64.04.0108 ø0,8 x 8mm
(muss 1mm vorstehen)

Änderung					
					3
					2
					1
Ausgabe	2.12.91	A.Ho			0
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH

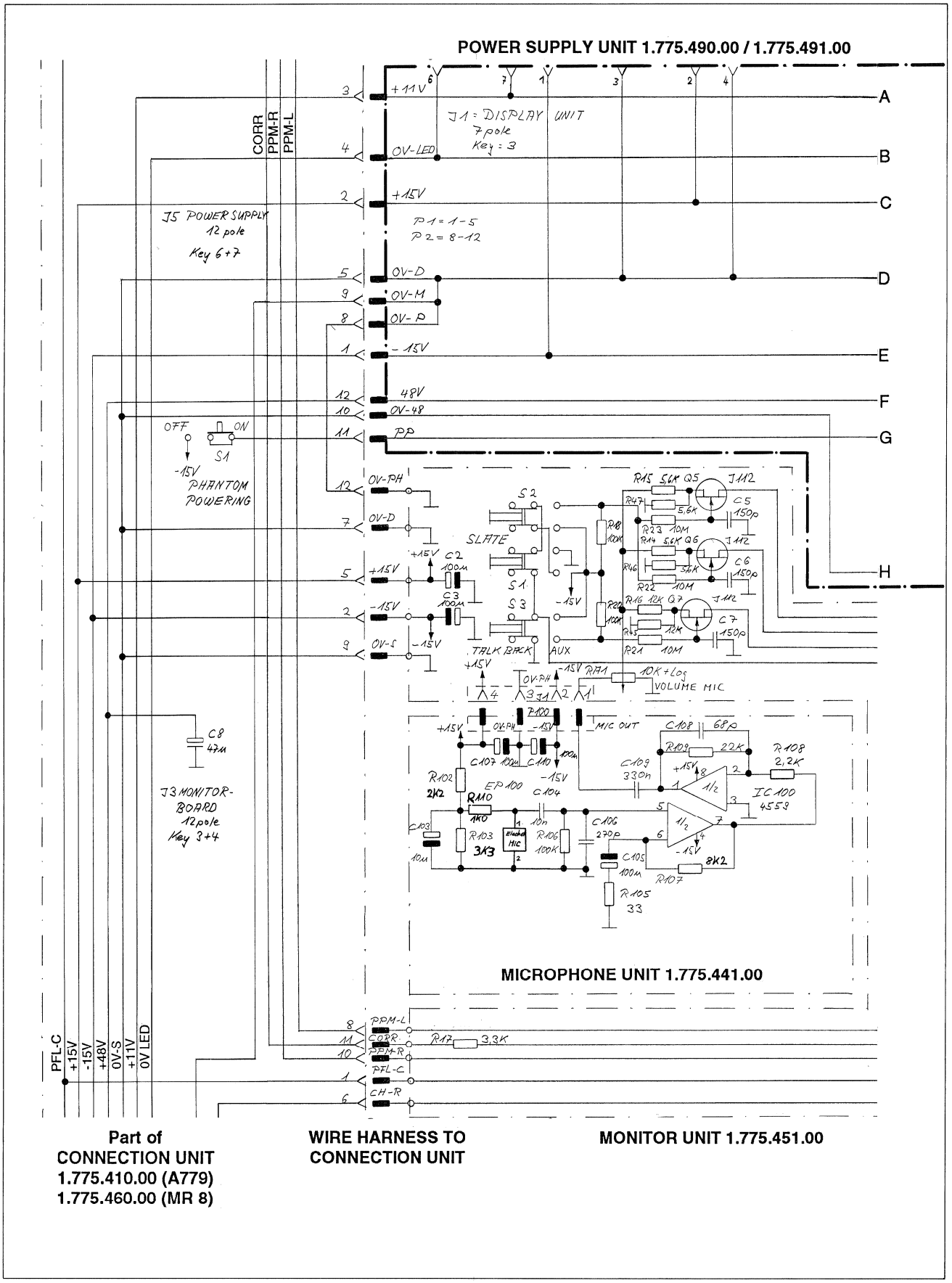
Benennung: DISTRIBUTOR

Nummer: 1.775.221-00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	F.....1	51.01.0118 T1.25A	Fuse	
	F.....2	51.01.0118 T1.25A	Fuse	
	F.....3	51.01.0117 T1A	Fuse	
	F.....4	51.01.0112 T315mA	Fuse	
	J.....1	54.01.0289 8Pole	CIS	
	MP....1	1.775.221.11	DISTRIBUTOR PCB SEC.	
	W.....1	1.775.220.93	Wire List	
	X.....1	53.03.0142	Fuse Holder	
	X.....2	53.03.0142	Fuse Holder	
	X.....3	53.03.0142	Fuse Holder	
	X.....4	53.03.0142	Fuse Holder	
	X.....5	53.03.0142	Fuse Holder	
	X.....6	53.03.0142	Fuse Holder	
	X.....7	53.03.0142	Fuse Holder	
	X.....8	53.03.0142	Fuse Holder	
		1.775.221.00 DISTRIBUTOR SEC.		KG 92/01/2200

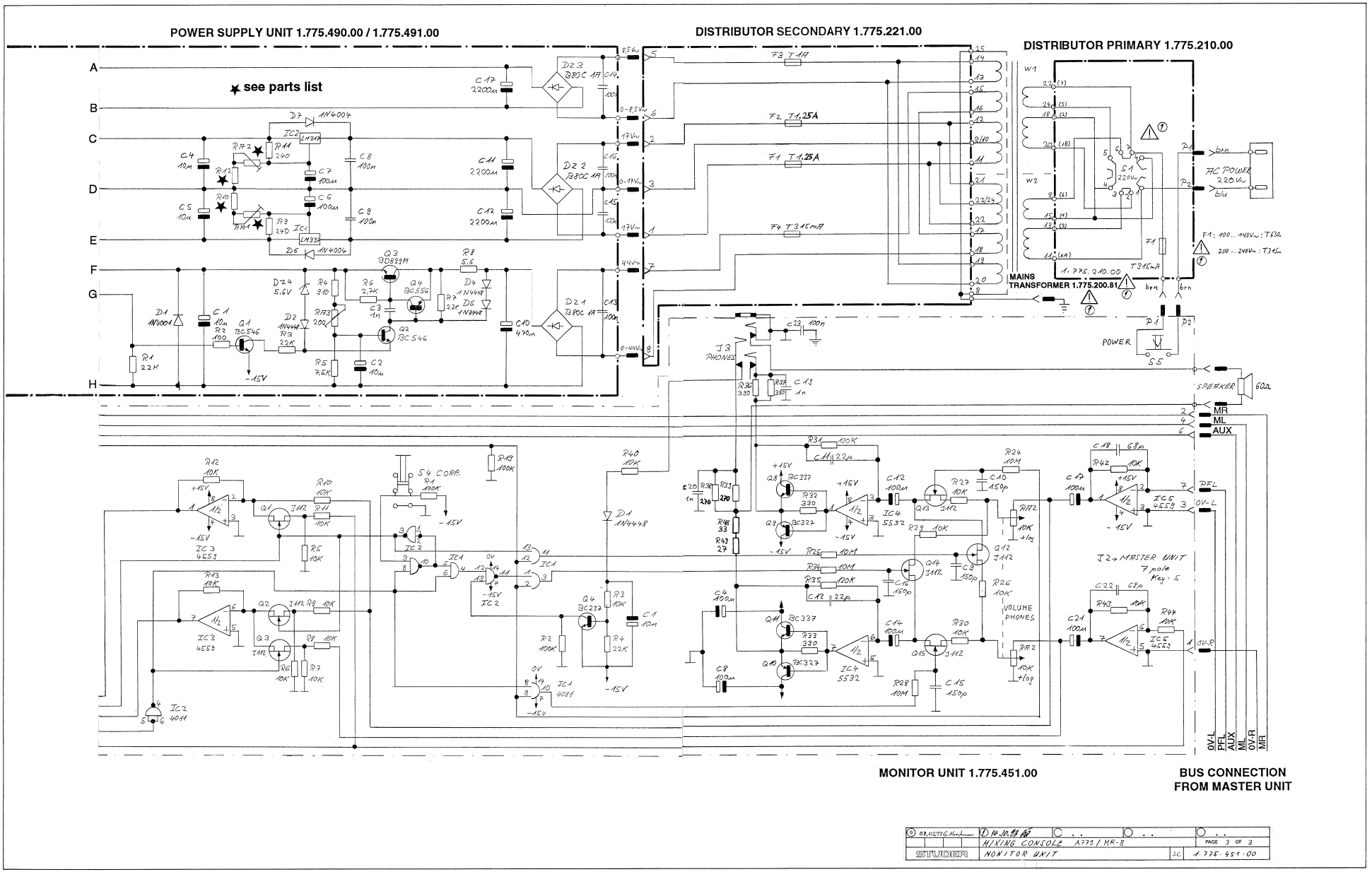
POWER SUPPLY UNIT 1.775.490.00 (A779) / 1.775.491.00 (MR 8)

- MAINS TRANSFORMER 1.775.200.81
- DISTRIBUTOR PRIMARY 1.775.210.00
- DISTRIBUTOR SECONDARY 1.775.221.00

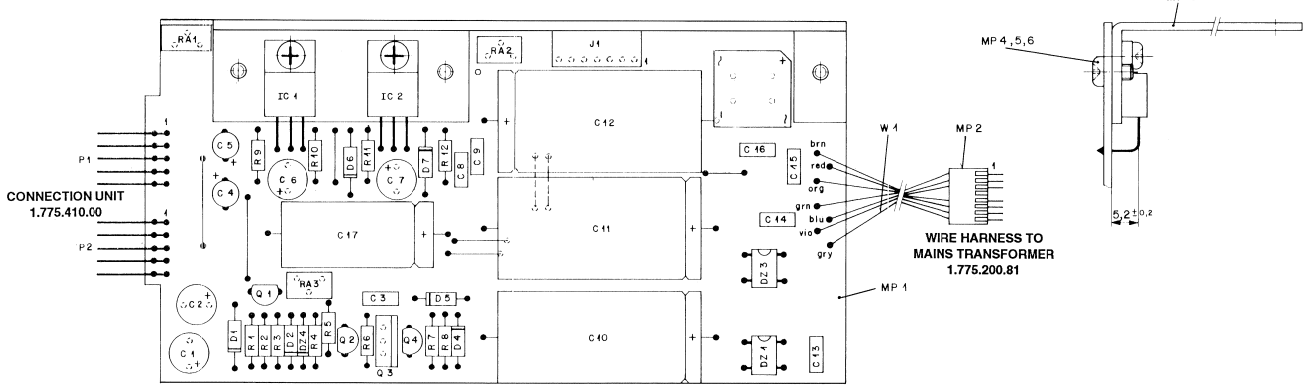


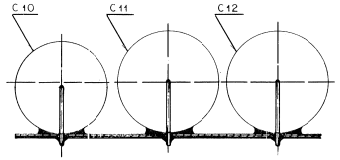
EDITION: 20.2.1995

POWER SUPPLY UNIT 1.775.490.00 (A779) / 1.775.491.00 (MR 8)
- MAINS TRANSFORMER 1.775.200.81
- DISTRIBUTOR PRIMARY 1.775.210.00
- DISTRIBUTOR SECONDARY 1.775.221.00



POWER SUPPLY 1.775.490.00 (A779)





Ad	..POS..	...REF.No...	DESCRIPTION		MANUFACTURER
	C.....1	59.22.8100	10 uF	-20%, 63V, EL	
	C.....2	59.22.8100	10 uF	-20%, 63V, EL	
	C.....3	59.06.0102	1 nF	10%, 25V, PETP	
	C.....4	59.22.6100	10 uF	-20%, 25V, EL	
	C.....5	59.22.6100	10 uF	-20%, 25V, EL	
	C.....6	59.22.5101	100 uF	-20%, 25V, EL	
	C.....7	59.22.5101	100 uF	-20%, 25V, EL	
	C.....8	59.06.0104	100 nF	10%, 25V, PETP	
	C.....9	59.06.0104	100 nF	10%, 25V, PETP	
	C....10	59.25.7471	470uF	-20%,100V, EL	
	C....11	59.25.5222	2200uF	-20%, 40V, EL	
	C....12	59.25.5222	2200uF	-20%, 40V, EL	
	C....13	59.06.0104	100 nF	10%, 25V, PETP	
	C....14	59.06.0104	100 nF	10%, 25V, PETP	
	C....15	59.06.0104	100 nF	10%, 25V, PETP	
	C....16	59.06.0104	100 nF	10%, 25V, PETP	
	C....17	59.25.3222	2200uF	-20%, 16V, EL	
	D.....1	50.04.0105	1N 4004		
	D.....2	50.04.0125	1N 4448		
	D.....4	50.04.0125	1N 4448		
	D.....5	50.04.0125	1N 4448		
	D.....6	50.04.0105	1N 4004		
	D.....7	50.04.0105	1N 4004		
	DZ....1	70.01.0216		140V 0.8A	
	DZ....2	70.01.0226		280V 2.0A	
	DZ....3	70.01.0216		140V 0.8A	
	DZ....4	50.04.1108	5.6V Z		
	IC....1	50.10.0105	LM337		NS
	IC....2	50.10.0104	LM317		NS
	J.....1	54.01.0263	7-Pole	CIS	
	MP....1	1.775.490.11		POWER SUPPLY PCB	
	MP....2	54.01.0265	8-Pole	CIS	
	MP....3	1.775.300.01		Heat Sink	
	MP....4	21.38.0353		Screw	
	MP....5	21.38.0353		Screw	
	MP....6	21.38.0353		Screw	
	MP....7	21.38.0355		Screw	
	MP....8	21.38.0355		Screw	
	MP....9	37.01.0101		Washer	
	MP...10	37.01.0101		Washer	
	MP...11	37.01.0101		Washer	
	MP...12	37.01.0101		Washer	
	MP...13	50.20.0404		Insulating bushing	
	MP...14	50.20.0404		Insulating bushing	
	MP...15	50.20.0305		Insulator	
	MP...16	50.20.0305		Insulator	
	MP...17	1.010.098.27		Washer	
	MP...18	1.010.098.27		Washer	
	MP...19	1.775.490.01		Nr. Label	
	MP...20	43.01.0108		ESE Label	
	P.....1	54.01.0425	5-Pole	CIS	
	P.....2	54.01.0425	5-Pole	CIS	
	Q.....1	50.03.0491	BC 546	NPN	
	Q.....2	50.03.0491	BC 546	NPN	
	Q.....3	50.03.0512	BD 899A	NPN	
	Q.....4	50.03.0492	BC 556	PNP	
	R.....1	57.11.3223	22 KOhm	1%, 0.25W, MF	
	R.....2	57.11.3101	100 Ohm	1%, 0.25W, MF	
	R.....3	57.11.3223	22 KOhm	1%, 0.25W, MF	
	R.....4	57.11.3911	910 Ohm	1%, 0.25W, MF	
	R.....5	57.11.3752	7.5 KOhm	1%, 0.25W, MF	
	R.....6	57.11.3272	2.7 KOhm	1%, 0.25W, MF	
	R.....7	57.11.3222	2.2 KOhm	1%, 0.25W, MF	
	R.....8	57.11.3569	5.6 Ohm	1%, 0.25W, MF	
	R.....9	57.11.3241	240 Ohm	1%, 0.25W, MF	
	R....10	57.11.3242	2.4 KOhm	1%, 0.25W, MF	
	R....11	57.11.3241	240 Ohm	1%, 0.25W, MF	
	R....12	57.11.3242	2.4 KOhm	1%, 0.25W, MF	
	RA....1	53.01.9501	500 Ohm	-10%, 0.50W, C	
	RA....2	53.01.9501	500 Ohm	-10%, 0.50W, C	
	RA....3	53.01.9201	200 Ohm	-10%, 0.50W, C	
	W.....1	1.775.300.93		Wire List	

EL=Electrolytic, C=Ceramic, PETP=Polyester

MF=Metal Film

MANUFACTURER: NS=National Semiconductor

1.775.490.00 POWER SUPPLY UL 89/04/2800

Änderung	Ausgabe	Datum	Gez	Gepr	Ges	Index
	9.5.89					0

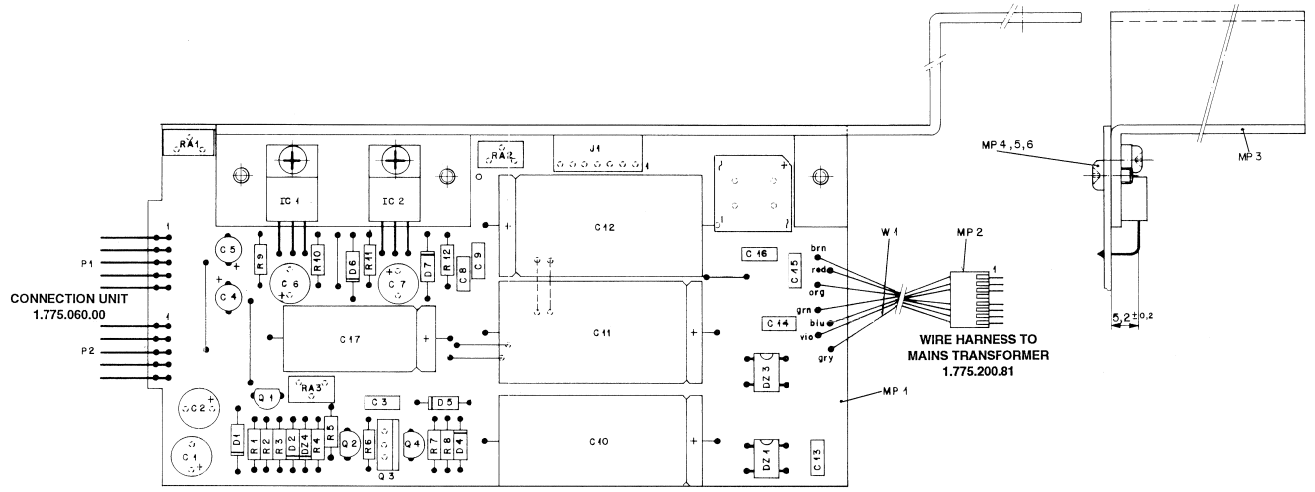
Kopie für

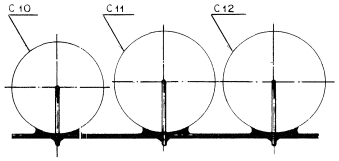
STUDER REGENSDORF ZÜRICH

Benennung: POWER SUPPLY ESE

Nummer: 1.775.490-00

POWER SUPPLY 1.775.491.00 (MR 8)





Änderung						3
						2
						1
Ausgabe	12.12.91					0
	Datum	Gez.	Gepr.	Gen.	Index	

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung: POWER SUPPLY ESE	Nummer: 1.775.491-00

Ad	..POS..	...REF.No...	DESCRIPTION		MANUFACTURER
	C.....1	59.22.8100	10 uF	-20%, 63V, EL	
	C.....2	59.22.8100	10 uF	-20%, 63V, EL	
	C.....3	59.06.0102	1 nF	10%, 25V, PETP	
	C.....4	59.22.6100	10 uF	-20%, 25V, EL	
	C.....5	59.22.6100	10 uF	-20%, 25V, EL	
	C.....6	59.22.5101	100 uF	-20%, 25V, EL	
	C.....7	59.22.5101	100 uF	-20%, 25V, EL	
	C.....8	59.06.0104	100 nF	10%, 25V, PETP	
	C.....9	59.06.0104	100 nF	10%, 25V, PETP	
	C....10	59.25.7471	470uF	-20%,100V, EL	
	C....11	59.25.5222	2200uF	-20%, 40V, EL	
	C....12	59.25.5222	2200uF	-20%, 40V, EL	
	C....13	59.06.0104	100 nF	10%, 25V, PETP	
	C....14	59.06.0104	100 nF	10%, 25V, PETP	
	C....15	59.06.0104	100 nF	10%, 25V, PETP	
	C....16	59.06.0104	100 nF	10%, 25V, PETP	
	C....17	59.25.3222	2200uF	-20%, 16V, EL	
	D.....1	50.04.0105	1N 4004		
	D.....2	50.04.0125	1N 4448		
	D.....4	50.04.0125	1N 4448		
	D.....5	50.04.0125	1N 4448		
	D.....6	50.04.0105	1N 4004		
	D.....7	50.04.0105	1N 4004		
	DZ....1	70.01.0216		140V 0.8A	
	DZ....2	70.01.0226		280V 2.0A	
	DZ....3	70.01.0216		140V 0.8A	
	DZ....4	50.04.1108	5.6V Z		
	IC....1	50.10.0105	LM337		NS
	IC....2	50.10.0104	LM317		NS
	J.....1	54.01.0263	7-Pole	CIS	
	MP....1	1.775.490.11		POWER SUPPLY PCB	
	MP....2	54.01.0266	8-Pole	CIS	
	MP....3	1.775.035.05		Heat Sink	
	MP....4	21.38.0353		Screw	
	MP....5	21.38.0353		Screw	
	MP....6	21.38.0353		Screw	
	MP....7	21.38.0355		Screw	
	MP....8	21.38.0355		Screw	
	MP....9	37.01.0101		Washer	
	MP...10	37.01.0101		Washer	
	MP...11	37.01.0101		Washer	
	MP...12	37.01.0101		Washer	
	MP...13	50.20.0404		Insulating bushing	
	MP...14	50.20.0404		Insulating bushing	
	MP...15	50.20.0305		Insulator	
	MP...16	50.20.0305		Insulator	
	MP...17	1.010.098.27		Washer	
	MP...18	1.010.098.27		Washer	
	MP...19	1.775.491.01		Nr. Label	
	MP...20	43.01.0108		ESE Label	
	P.....1	54.01.0425	5-Pole	CIS	
	P.....2	54.01.0425	5-Pole	CIS	
	Q.....1	50.03.0491	BC 546	NPN	
	Q.....2	50.03.0491	BC 546	NPN	
	Q.....3	50.03.0512	BD 899A	NPN	
	Q.....4	50.03.0492	BC 556	PNP	
	R.....1	57.11.3223	22 KOhm	1%, 0.25W, MF	
	R.....2	57.11.3101	100 Ohm	1%, 0.25W, MF	
	R.....3	57.11.3223	22 KOhm	1%, 0.25W, MF	
	R.....4	57.11.3911	910 Ohm	1%, 0.25W, MF	
	R.....5	57.11.3752	7.5 KOhm	1%, 0.25W, MF	
	R.....6	57.11.3272	2.7 KOhm	1%, 0.25W, MF	
	R.....7	57.11.3222	2.2 KOhm	1%, 0.25W, MF	
	R.....8	57.11.3569	5.6 Ohm	1%, 0.25W, MF	
	R.....9	57.11.3241	240 Ohm	1%, 0.25W, MF	
	R....10	57.11.3182	1.8 KOhm	1%, 0.25W, MF	
	R....11	57.11.3241	240 Ohm	1%, 0.25W, MF	
	R....12	57.11.3202	2.0 KOhm	1%, 0.25W, MF	
	RA....1	58.01.9102	1.0 KOhm	-10%, 0.50W, C	
	RA....2	58.01.9102	1.0 KOhm	-10%, 0.50W, C	
	RA....3	58.01.9201	200 Ohm	-10%, 0.50W, C	
	W.....1	1.775.300.93		Wire List	

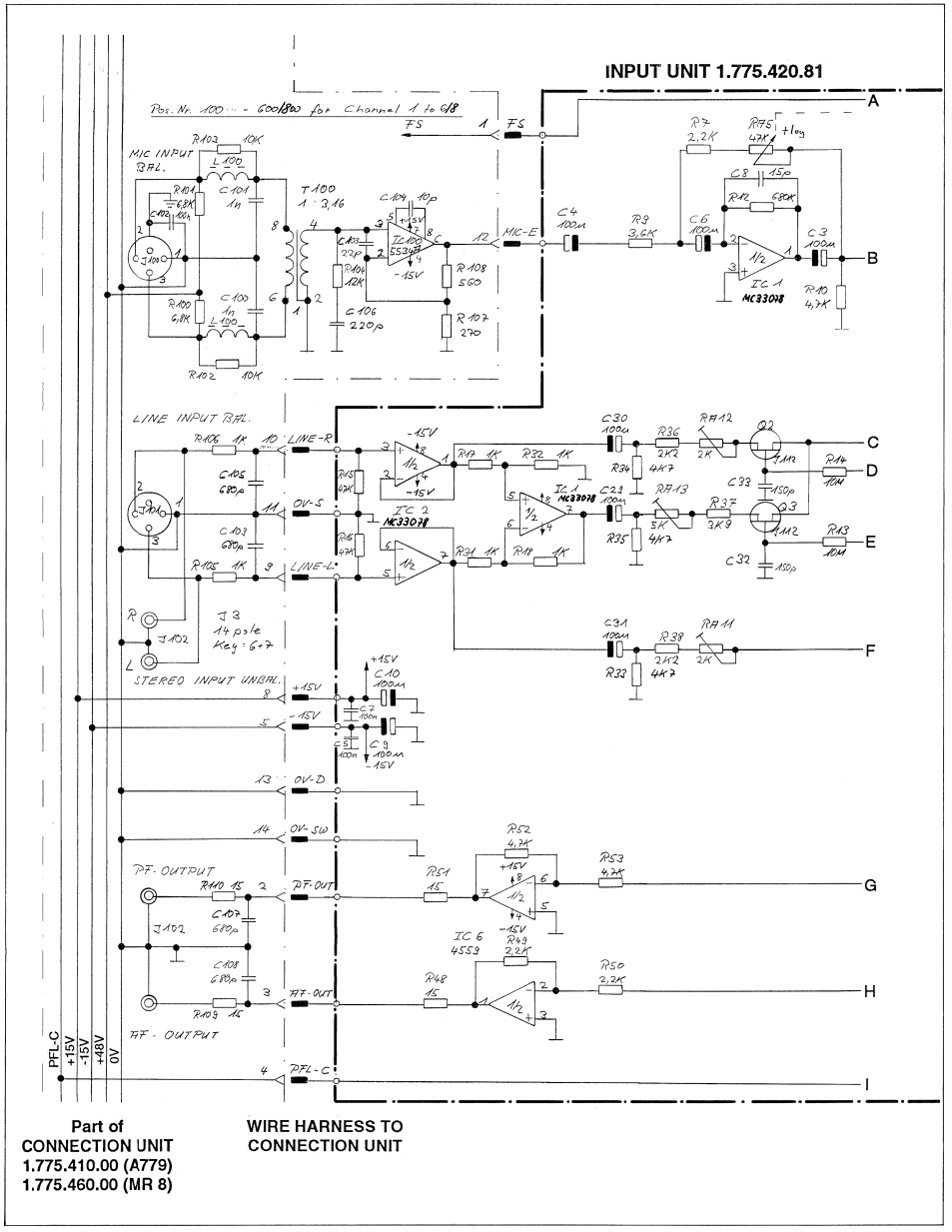
EL=Electrolytic, C=Ceramic, PETP=Polyester

MF=Metal Film

MANUFACTURER: NS=National Semiconductor

1.775.491.00 POWER SUPPLY KG 92/01/2200

INPUT UNIT 1.775.420.81

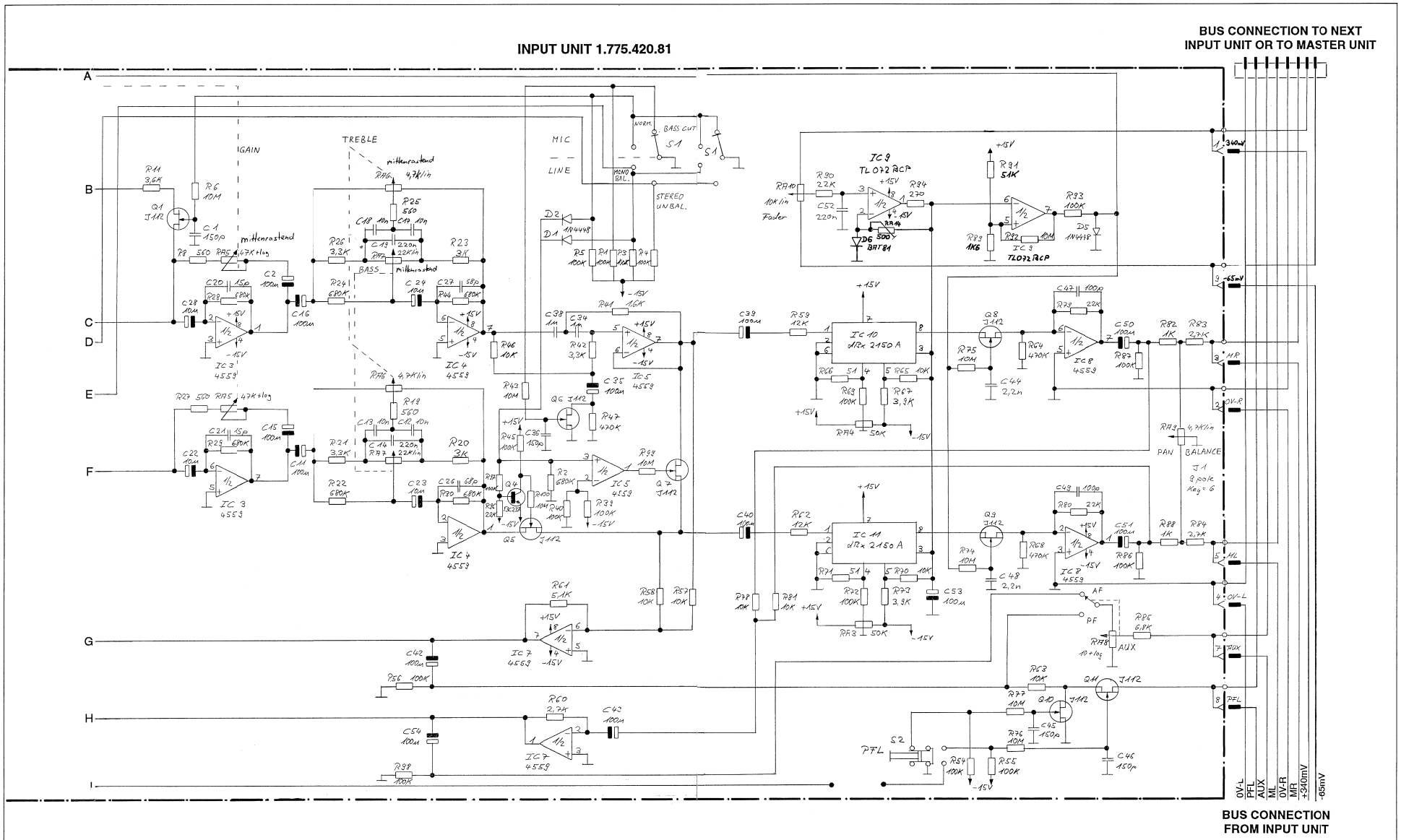


Part of
CONNECTION UNIT
1.775.410.00 (A779)
1.775.460.00 (MR 8)

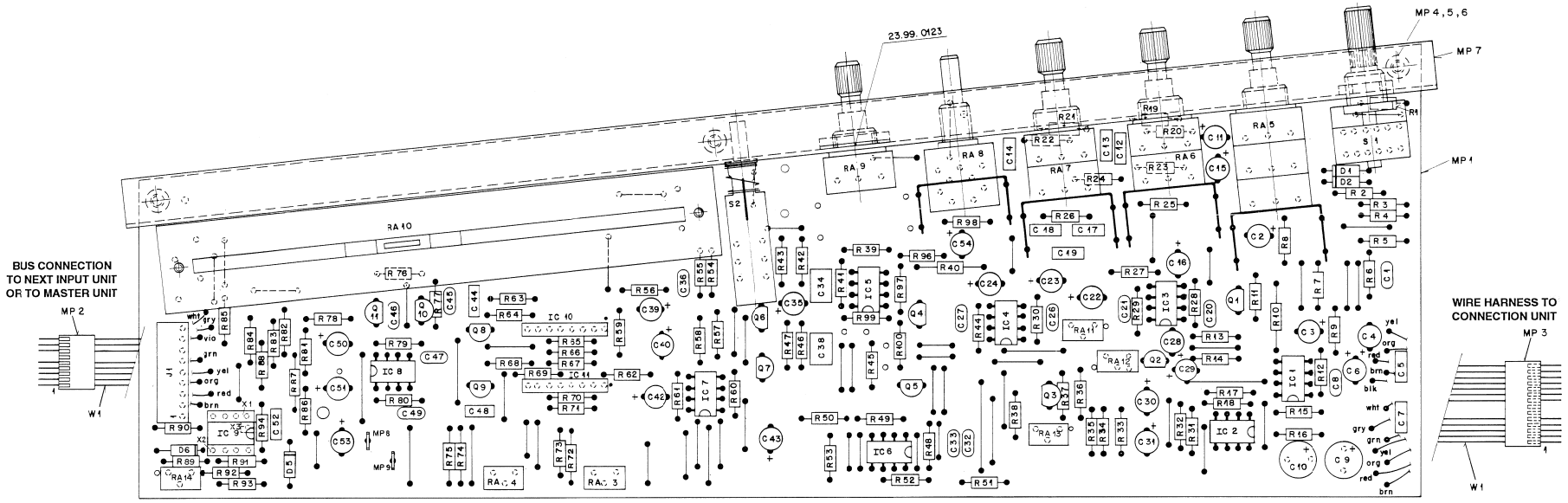
WIRE HARNESS TO
CONNECTION UNIT

EDITION: 20.2.1995

INPUT UNIT 1.775.420.81



INPUT UNIT 1.775.420.81



Änderung					③
					②
					①
Ausgabe	27.1.92				⓪
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH

Benennung: INPUT UNIT ESE

Nummer: 1.775.420-81

Ad	..POS..	..REF.No...	DESCRIPTION	MANUFACTURER
	C.....1	59.34.4151	150 pF 10%, 25V,	C
	C.....2	59.22.3101	100 uF -20%, 10V,	EL
	C.....3	59.22.3101	100 uF -20%, 10V,	EL
	C.....4	59.22.3101	100 uF -20%, 10V,	EL
	C.....5	59.06.0104	100 nF 10%, 25V,	PETP
	C.....6	59.22.3101	100 uF -20%, 10V,	EL
	C.....7	59.06.0104	100 nF 10%, 25V,	PETP
	C.....8	59.34.1150	15 pF 10%, 25V,	C
	C.....9	59.22.5101	100 uF -20%, 25V,	EL
	C....10	59.22.5101	100 uF -20%, 25V,	EL
	C....11	59.22.3101	100 uF -20%, 10V,	EL
	C....12	59.06.5103	10 nF 10%, 25V,	PETP
	C....13	59.06.5103	10 nF 10%, 25V,	PETP
	C....14	59.06.5224	220 nF 10%, 25V,	PETP
	C....15	59.22.3101	100 uF -20%, 10V,	EL
	C....16	59.22.3101	100 uF -20%, 10V,	EL
	C....17	59.06.5103	10 nF 10%, 25V,	PETP
	C....18	59.06.5103	10 nF 10%, 25V,	PETP
	C....19	59.06.5224	220 nF 10%, 25V,	PETP
	C....20	59.34.1150	15 pF 10%, 25V,	C
	C....21	59.34.1150	15 pF 10%, 25V,	C
	C....22	59.22.6100	10 uF -20%, 10V,	EL
	C....23	59.22.6100	10 uF -20%, 10V,	EL
	C....24	59.22.6100	10 uF -20%, 10V,	EL
	C....26	59.34.4680	68 pF 10%, 25V,	C
	C....27	59.34.4680	68 pF 10%, 25V,	C
	C....28	59.22.6100	10 uF -20%, 10V,	EL
	C....29	59.22.3101	100 uF -20%, 10V,	EL
	C....30	59.22.3101	100 uF -20%, 10V,	EL
	C....31	59.22.3101	100 uF -20%, 10V,	EL
	C....32	59.34.4151	150 pF 10%, 25V,	C
	C....33	59.34.4151	150 pF 10%, 25V,	C
	C....34	59.06.0105	1 uF 10%, 25V,	PETP
	C....35	59.22.3101	100 uF -20%, 10V,	EL
	C....36	59.34.4151	150 pF 10%, 25V,	C
	C....38	59.06.0105	1 uF 10%, 25V,	PETP
	C....39	59.22.3101	100 uF -20%, 10V,	EL
	C....40	59.22.3101	100 uF -20%, 10V,	EL

INPUT UNIT 1.775.420.81

Ad	..POS..	...REF.No...	DESCRIPTION		MANUFACTURER
	C....42	59.22.3101	100 uF	-20%, 10V, EL	
	C....43	59.22.3101	100 uF	-20%, 10V, EL	
	C....44	59.06.0222	2.2 nF	10%, 25V, PETP	
	C....45	59.34.4151	150 pF	10%, 25V, C	
	C....46	59.34.4151	150 pF	10%, 25V, C	
	C....47	59.34.4101	100 pF	10%, 25V, C	
	C....48	59.06.0222	2.2 nF	10%, 25V, PETP	
	C....49	59.34.4101	100 pF	10%, 25V, C	
	C....50	59.22.3101	100 uF	-20%, 10V, EL	
	C....51	59.22.3101	100 uF	-20%, 10V, EL	
	C....52	59.06.5224	220 nF	10%, 25V, PETP	
	C....53	59.22.3101	100 uF	-20%, 10V, EL	
	C....54	59.22.3101	100 uF	-20%, 10V, EL	
	D.....1	50.04.0125	1N 4448	any	
	D.....2	50.04.0125	1N 4448	any	
	D.....5	50.04.0125	1N 4448	any	
	D.....6	50.04.0523	BAT 81	Schottky-Diode	
	IC....1	50.09.0117	MC33078P		Mot
	IC....2	50.09.0117	MC33078P		Mot
	IC....3	50.09.0107	RC4559		Ra
	IC....4	50.09.0107	RC4559		Ra
	IC....5	50.09.0107	RC4559		Ra
	IC....6	50.09.0107	RC4559		Ra
	IC....7	50.09.0107	RC4559		Ra
	IC....8	50.09.0107	RC4559		Ra
	IC....9	50.09.0121	TL072B		TI
	IC...10	50.11.0140	dbx2150A	VCA	dbx
	IC...11	50.11.0140	dbx2150A	VCA	dbx
	J.....1	54.01.0235	9-Pole	CIS	
	MP....1	1.775.420.11		INPUT PCB	
	MP....2	54.01.0232	9-Pole	CIS	
	MP....3	54.01.0282	14-Pole	CIS	
	MP....4	21.38.1352		Screw	
	MP....5	21.38.1352		Screw	
	MP....6	21.38.1352		Screw	
	MP....7	1.775.370.20		U-Profile	
	MP....8	54.33.6010	2.8mm	AMP	
	MP....9	54.33.6010	2.8mm	AMP	
	MP...10	1.775.420.02		Nr. Label	
	MP...11	43.01.0108		ESE Label	
	Q.....1	50.03.0350	J 112	FET	Mot
	Q.....2	50.03.0350	J 112	FET	Mot
	Q.....3	50.03.0350	J 112	FET	Mot
	Q.....4	50.03.0436	BC 237	NPN	Mot
	Q.....5	50.03.0350	J 112	FET	Mot
	Q.....6	50.03.0350	J 112	FET	Mot
	Q.....7	50.03.0350	J 112	FET	Mot
	Q.....8	50.03.0350	J 112	FET	Mot
	Q.....9	50.03.0350	J 112	FET	Mot
	Q....10	50.03.0350	J 112	FET	Mot
	Q....11	50.03.0350	J 112	FET	Mot
	R.....1	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R.....2	57.11.3684	680 KOhm	1%, 0.25W, MF	
	R.....3	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R.....4	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R.....5	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R.....6	57.11.5106	10 MOhm	5%, 0.25W, MF	
	R.....7	57.11.3222	2.2 KOhm	1%, 0.25W, MF	
	R.....8	57.11.3561	560 Ohm	1%, 0.25W, MF	
	R.....9	57.11.3362	3.6 KOhm	1%, 0.25W, MF	
	R....10	57.11.3472	4.7 KOhm	1%, 0.25W, MF	
	R....11	57.11.3362	3.6 KOhm	1%, 0.25W, MF	
	R....12	57.11.3684	680 KOhm	1%, 0.25W, MF	
	R....13	57.11.5106	10 MOhm	1%, 0.25W, MF	
	R....14	57.11.5106	10 MOhm	5%, 0.25W, MF	
	R....15	57.11.3473	47 KOhm	1%, 0.25W, MF	
	R....16	57.11.3473	47 KOhm	1%, 0.25W, MF	
	R....17	57.11.3102	1 KOhm	1%, 0.25W, MF	
	R....18	57.11.3102	1 KOhm	1%, 0.25W, MF	
	R....19	57.11.3561	560 Ohm	1%, 0.25W, MF	
	R....20	57.11.3302	3 KOhm	1%, 0.25W, MF	
	R....21	57.11.3332	3.3 KOhm	1%, 0.25W, MF	
	R....22	57.11.3684	680 KOhm	1%, 0.25W, MF	
	R....23	57.11.3302	3 KOhm	1%, 0.25W, MF	
	R....24	57.11.3684	680 KOhm	1%, 0.25W, MF	
	R....25	57.11.3561	560 Ohm	1%, 0.25W, MF	
	R....26	57.11.3332	3.3 KOhm	1%, 0.25W, MF	
	R....27	57.11.3561	560 Ohm	1%, 0.25W, MF	
	R....28	57.11.3684	680 KOhm	1%, 0.25W, MF	
	R....29	57.11.3684	680 KOhm	1%, 0.25W, MF	
	R....30	57.11.3684	680 KOhm	1%, 0.25W, MF	
	R....31	57.11.3102	1 KOhm	1%, 0.25W, MF	
	R....32	57.11.3102	1 KOhm	1%, 0.25W, MF	
	R....33	57.11.3472	4.7 KOhm	1%, 0.25W, MF	
	R....34	57.11.3472	4.7 KOhm	1%, 0.25W, MF	
	R....35	57.11.3472	4.7 KOhm	1%, 0.25W, MF	
	R....36	57.11.3222	2.2 KOhm	1%, 0.25W, MF	
	R....37	57.11.3392	3.9 KOhm	1%, 0.25W, MF	
	R....38	57.11.3222	2.2 KOhm	1%, 0.25W, MF	
	R....39	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....40	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....41	57.11.3162	1.6 KOhm	1%, 0.25W, MF	
	R....42	57.11.3332	3.3K Ohm	1%, 0.25W, MF	
	R....43	57.11.5106	10 MOhm	5%, 0.25W, MF	
	R....44	57.11.3684	680 KOhm	1%, 0.25W, MF	
	R....45	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....46	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....47	57.11.3474	470 KOhm	1%, 0.25W, MF	
	R....48	57.11.3150	15 Ohm	1%, 0.25W, MF	
	R....49	57.11.3222	2.2 KOhm	1%, 0.25W, MF	
	R....50	57.11.3222	2.2 KOhm	1%, 0.25W, MF	
	R....51	57.11.3150	15 Ohm	1%, 0.25W, MF	
	R....52	57.11.3472	4.7 KOhm	1%, 0.25W, MF	
	R....53	57.11.3472	4.7 KOhm	1%, 0.25W, MF	
	R....54	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....55	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....56	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....57	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....58	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....59	57.11.3123	12 KOhm	1%, 0.25W, MF	
	R....60	57.11.3272	2.7 KOhm	1%, 0.25W, MF	
	R....61	57.11.3512	5.1 KOhm	1%, 0.25W, MF	
	R....62	57.11.3123	12 KOhm	1%, 0.25W, MF	
	R....63	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....64	57.11.3474	470 KOhm	1%, 0.25W, MF	
	R....65	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....66	57.11.3510	51 Ohm	1%, 0.25W, MF	
	R....67	57.11.3392	3.9 KOhm	1%, 0.25W, MF	
	R....68	57.11.3474	470 KOhm	1%, 0.25W, MF	
	R....69	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....70	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....71	57.11.3510	51 Ohm	1%, 0.25W, MF	
	R....72	57.11.3104	100 kOhm	1%, 0.25W, MF	
	R....73	57.11.3392	3.9 KOhm	1%, 0.25W, MF	
	R....74	57.11.5106	10 MOhm	5%, 0.25W, MF	
	R....75	57.11.5106	10 MOhm	5%, 0.25W, MF	
	R....76	57.11.5106	10 MOhm	5%, 0.25W, MF	
	R....77	57.11.5106	10 MOhm	5%, 0.25W, MF	
	R....78	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....79	57.11.3223	22 KOhm	1%, 0.25W, MF	
	R....80	57.11.3223	22 KOhm	1%, 0.25W, MF	
	R....81	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....82	57.11.3102	1 KOhm	1%, 0.25W, MF	
	R....83	57.11.3272	2.7 KOhm	1%, 0.25W, MF	
	R....84	57.11.3272	2.7 KOhm	1%, 0.25W, MF	
	R....85	57.11.3682	6.8 KOhm	1%, 0.25W, MF	
	R....86	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....87	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....88	57.11.3102	1 KOhm	1%, 0.25W, MF	
	R....89	57.11.3162	1.6 KOhm	1%, 0.25W, MF	
	R....90	57.11.3223	22 KOhm	1%, 0.25W, MF	
	R....91	57.11.3513	51 KOhm	1%, 0.25W, MF	
	R....92	57.11.5106	10 MOhm	5%, 0.25W, MF	
	R....93	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....94	57.11.3271	270 Ohm	1%, 0.25W, MF	
	R....96	57.11.3223	22 KOhm	1%, 0.25W, MF	
	R....97	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....98	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....99	57.11.5106	10 MOhm	5%, 0.25W, MF	
	R...100	57.11.5106	10 MOhm	5%, 0.25W, MF	
	RA....3	58.01.9503	50 KOhm	10%, 0.50W, C	
	RA....4	58.01.9503	50 KOhm	10%, 0.50W, C	
	RA....5	1.775.330.02	3*47 KOhm	pos.log	
	RA....6	1.775.800.03	2*4.7KOhm	lin.	
	RA....7	1.775.800.04	2* 22KOhm	lin.	
	RA....8	1.369.150.03	1* 10KOhm	pos.log + Switch 1*2u	
	RA....9	1.775.330.06	1*4.7KOhm	lin.	
	RA...10	1.775.330.07	1* 10KOhm	lin. Fader	
	RA...11	58.01.9202	2 KOhm	10%, 0.50W, C	
	RA...12	58.01.9202	2 KOhm	10%, 0.50W, C	
	RA...13	58.01.9502	5 KOhm	10%, 0.50W, C	
	RA...14	58.01.9501	500 Ohm	10%, 0.50W, C	
	S.....1	1.775.330.01		1Step/4Pos.	
	S.....2	55.15.0109		1*2u	
	W.....1	1.775.330.93		Wire List	
	X.....1	53.03.0218	4-pole	Socket	
	X.....2	53.03.0218	4-pole	Socket	
	X.....3	53.03.0218	1-pole	Socket	

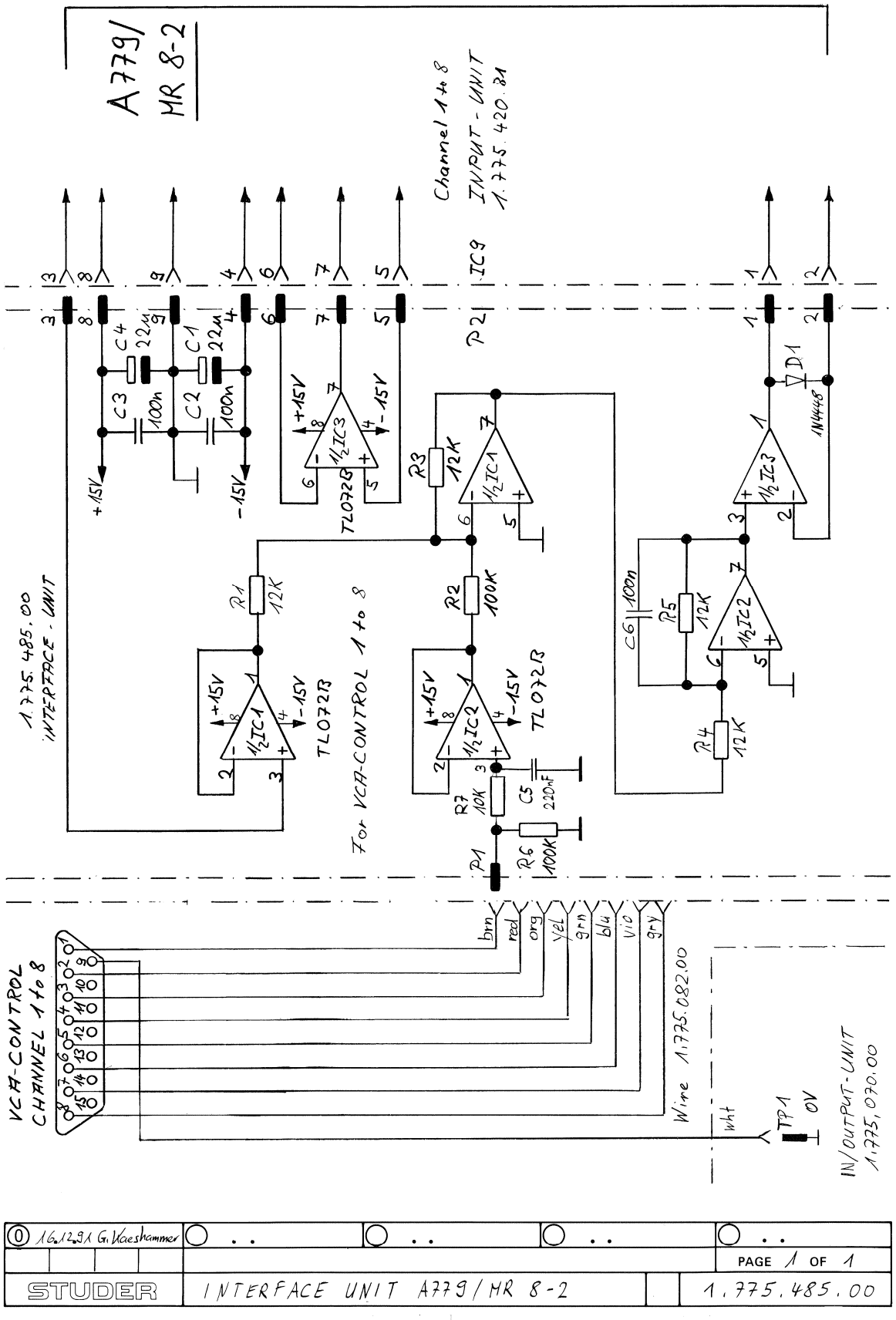
EL=Electrolytic,C=Ceramic, PETP=Polyester

MF=Metal Film

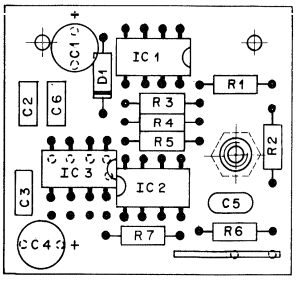
MANUFACTURER: dbx=dbx Incorparated,NS=National Semiconductor,Mot=Motorola
RA=Raytheon,SIG=Signetics,TI=Texas Instruments

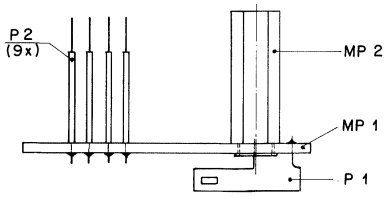
1.775.420.81 INPUT UNIT KG 92/01/2200

INTERFACE UNIT 1.775.485.00



INTERFACE UNIT 1.775.485.00





Änderung					
					3
					2
					1
Ausgabe	3.12.91				0
	Datum	Gez.	Gepr.	Ges.	Index

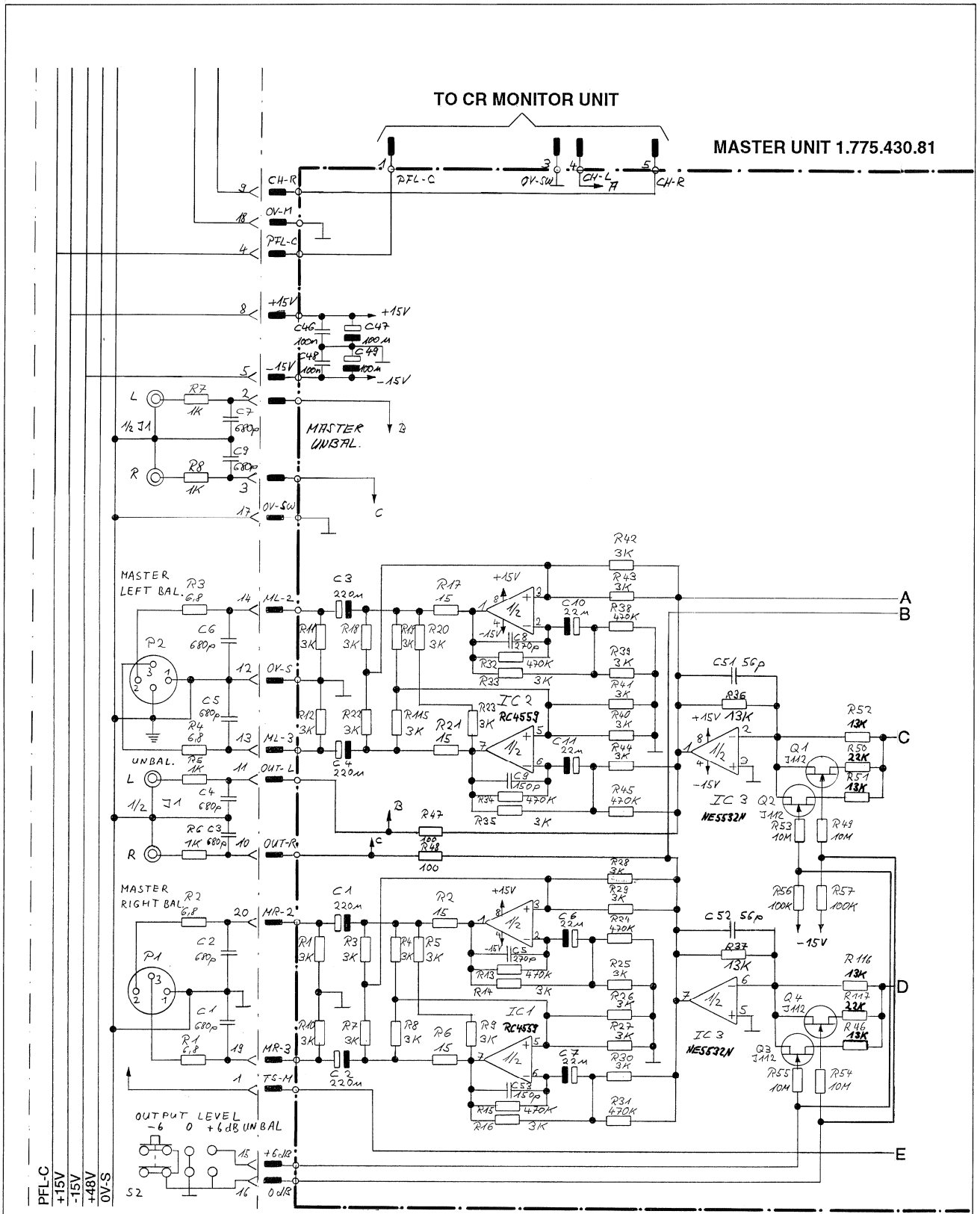
Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung:	Interface - Unit ESE	Nummer:	1.775.485-00

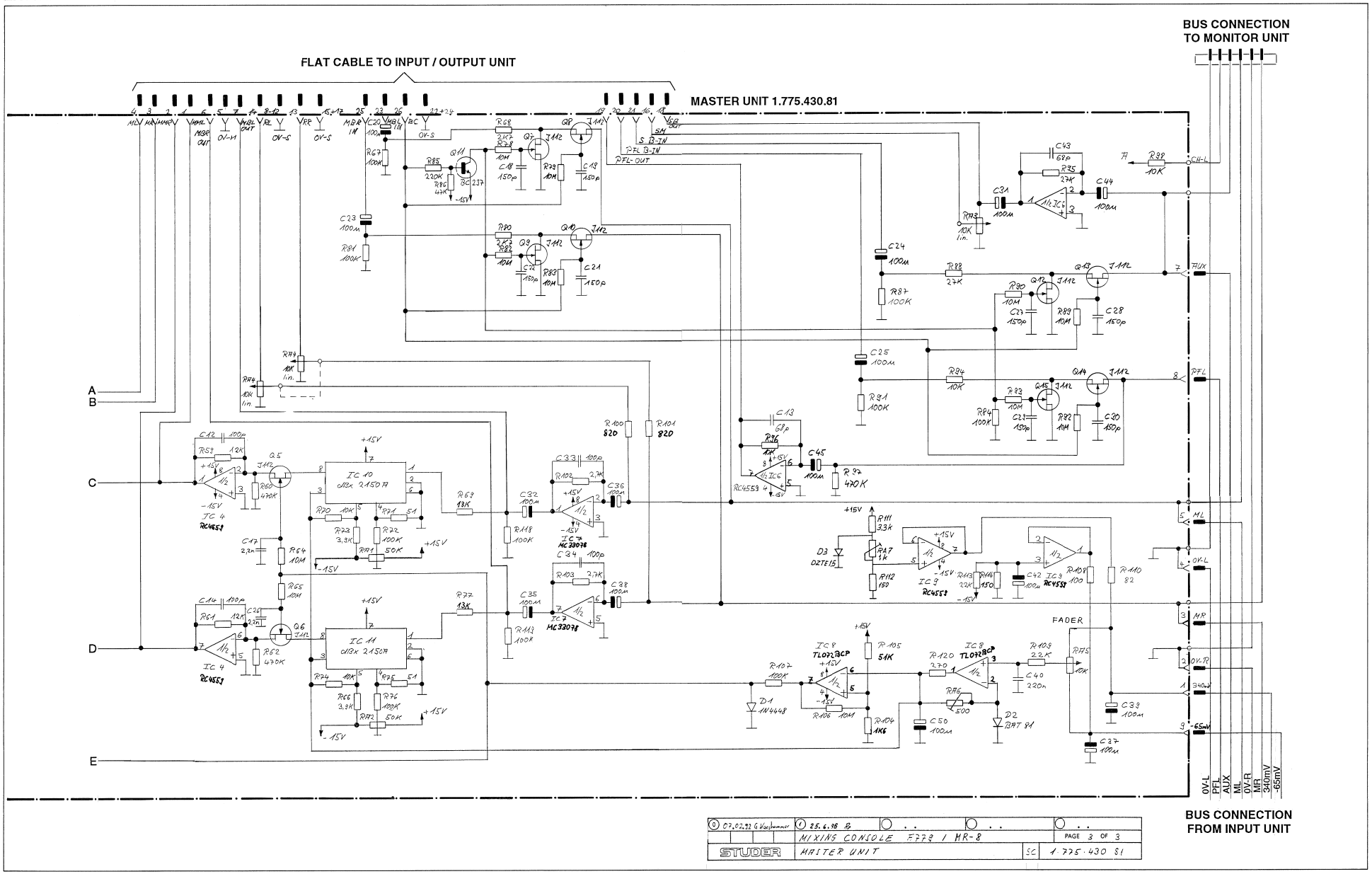
Ad	..POS..	...REF.No...	DESCRIPTION.....	.....MANUFACTURER
	C.....1	59.22.5220	22 uF	-20%, 25V, EL
	C.....2	59.06.0104	100 nF	10%, 10V, PETP
	C.....3	59.06.0104	100 nF	10%, 10V, PETP
	C.....4	59.22.5220	22 uF	-20%, 25V, EL
	C.....5	59.06.0224	220 nF	10%, 25V, PETP
	C.....6	59.06.0104	100 nF	10%, 10V, PETP
	D.....1	50.04.0125	1N4448	any
	IC....1	50.09.0121	TL072B	
	IC....2	50.09.0121	TL072B	
	IC....3	50.09.0121	TL072B	
	MP....1	1.775.485.11		Interface Unit PCB
	MP....2	1.010.050.22		Nut M3*18
	MP....3	43.01.0108		ESE-Label
	MP....4	1.775.485.01		Board-Label
	P.....1	54.02.0328		AMP
	P.....2	1.010.019.54	9Pin	
	R.....1	57.11.3123	12 KOhm	1%, 0.25W, MF
	R.....2	57.11.3104	100 KOhm	1%, 0.25W, MF
	R.....3	57.11.3123	12 KOhm	1%, 0.25W, MF
	R.....4	57.11.3123	12 KOhm	1%, 0.25W, MF
	R.....5	57.11.3123	12 KOhm	1%, 0.25W, MF
	R.....6	57.11.3104	100 KOhm	1%, 0.25W, MF
	R.....7	57.11.3103	10 KOhm	1%, 0.25W, MF

1.775.485.00 INTERFACE-UNIT KG92/01/2200

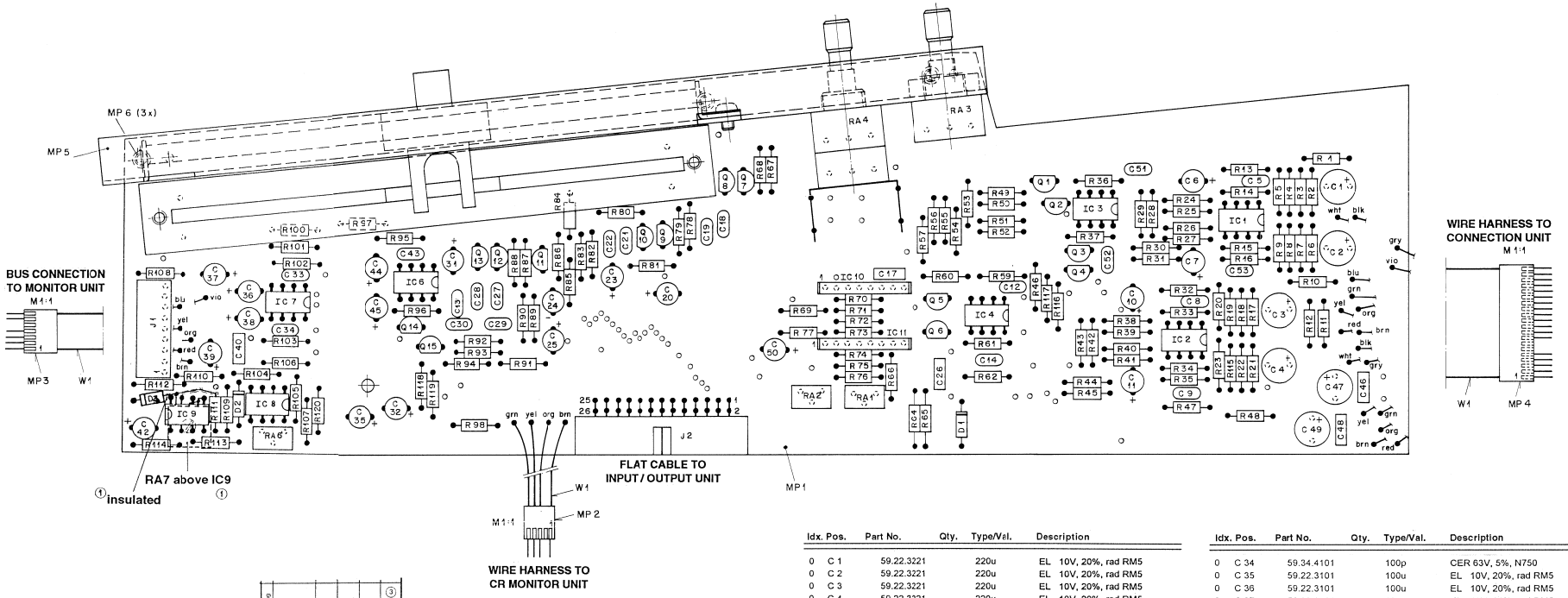
MASTER UNIT 1.775.430.81



MASTER UNIT 1.775.430.81



MASTER UNIT 1.775.430.81



Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.22.3221		220u	EL 10V, 20%, rad RM5
0	C 2	59.22.3221		220u	EL 10V, 20%, rad RM5
0	C 3	59.22.3221		220u	EL 10V, 20%, rad RM5
0	C 4	59.22.3221		220u	EL 10V, 20%, rad RM5
0	C 5	59.34.4271		270p	CER 63V, 5%, N750
0	C 6	59.22.5220		22u	EL 25V, 20%, rad RM5
0	C 7	59.22.5220		22u	EL 25V, 20%, rad RM5
0	C 8	59.34.4271		270p	CER 63V, 5%, N750
0	C 9	59.34.4151		150p	CER 63V, 5%, N750
0	C 10	59.22.5220		22u	EL 25V, 20%, rad RM5
0	C 11	59.22.5220		22u	EL 25V, 20%, rad RM5
0	C 12	59.34.4101		100p	CER 63V, 5%, N750
0	C 13	59.34.4680		68p	CER 63V, 5%, N750
0	C 14	59.34.4101		100p	CER 63V, 5%, N750
0	C 17	59.06.0222		2n2	PETP, 10%, 63V
0	C 18	59.34.4151		150p	CER 63V, 5%, N750
0	C 19	59.34.4151		150p	CER 63V, 5%, N750
0	C 20	59.22.3101		100u	EL 10V, 20%, rad RM5
0	C 21	59.34.4151		150p	CER 63V, 5%, N750
0	C 22	59.34.4151		150p	CER 63V, 5%, N750
0	C 23	59.22.3101		100u	EL 10V, 20%, rad RM5
0	C 24	59.22.3101		100u	EL 10V, 20%, rad RM5
0	C 25	59.22.3101		100u	EL 10V, 20%, rad RM5
0	C 26	59.06.0222		2n2	PETP, 10%, 63V
0	C 27	59.34.4151		150p	CER 63V, 5%, N750
0	C 28	59.34.4151		150p	CER 63V, 5%, N750
0	C 29	59.34.4151		150p	CER 63V, 5%, N750
0	C 30	59.34.4151		150p	CER 63V, 5%, N750
0	C 31	59.22.3101		100u	EL 10V, 20%, rad RM5
0	C 32	59.22.3101		100u	EL 10V, 20%, rad RM5
0	C 33	59.34.4101		100p	CER 63V, 5%, N750
0	C 34	59.34.4101		100p	CER 63V, 5%, N750
0	C 35	59.22.3101		100u	EL 10V, 20%, rad RM5
0	C 36	59.22.3101		100u	EL 10V, 20%, rad RM5
0	C 37	59.22.3101		100u	EL 10V, 20%, rad RM5
0	C 38	59.22.3101		100u	EL 10V, 20%, rad RM5
0	C 39	59.22.3101		100u	EL 10V, 20%, rad RM5
0	C 40	59.06.0224		220n	PETP, 10%, 63V
1	C 41	not used		100u	EL 10V, 20%, rad RM5
0	C 42	59.22.3101		100u	EL 10V, 20%, rad RM5
0	C 43	59.34.4680		68p	CER 63V, 5%, N750
0	C 44	59.22.3101		100u	EL 10V, 20%, rad RM5
0	C 45	59.22.3101		100u	EL 10V, 20%, rad RM5
0	C 46	59.06.0104		100n	PETP, 10%, 63V
0	C 47	59.22.5101		100u	EL 25V, 20%, rad RM5
0	C 48	59.06.0104		100n	PETP, 10%, 63V
0	C 49	59.22.5101		100u	EL 25V, 20%, rad RM5
0	C 50	59.22.3101		100u	EL 10V, 20%, rad RM5
0	C 51	59.34.4560		56p	CER 63V, 5%, N750
0	C 52	59.34.4560		56p	CER 63V, 5%, N750
0	C 53	59.34.4151		150p	CER 63V, 5%, N750
0	D 1	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 2	50.04.0523		BAT81	D BAT 81
1	D 3	50.99.0183			D ZTE 1.5 300 MW
0	IC 1	50.09.0107		RC4559	IC RC 4559 N, UPC 4559 ,A
0	IC 2	50.09.0107		RC4559	IC RC 4559 N, UPC 4559 ,A
0	IC 3	50.09.0105		NE5532N	IC NE 5532 N, RC 5532 NB ,A
0	IC 4	50.09.0107		RC4559	IC RC 4559 N, UPC 4559 ,A
0	IC 6	50.09.0107		RC4559	IC RC 4559 N, UPC 4559 ,A
0	IC 7	50.09.0117		MC33078	IC MC 33078 P

Änderung	Ausgabe	Datum	Gez.	Gepr.	Ges.	Index
	27.1.92	25.6.96				0 1 2 3

Kopie für:

STUDER REGENSDORF ZÜRICH | Benennung: MASTER UNIT ESE | Nummer: 1.775.430-81

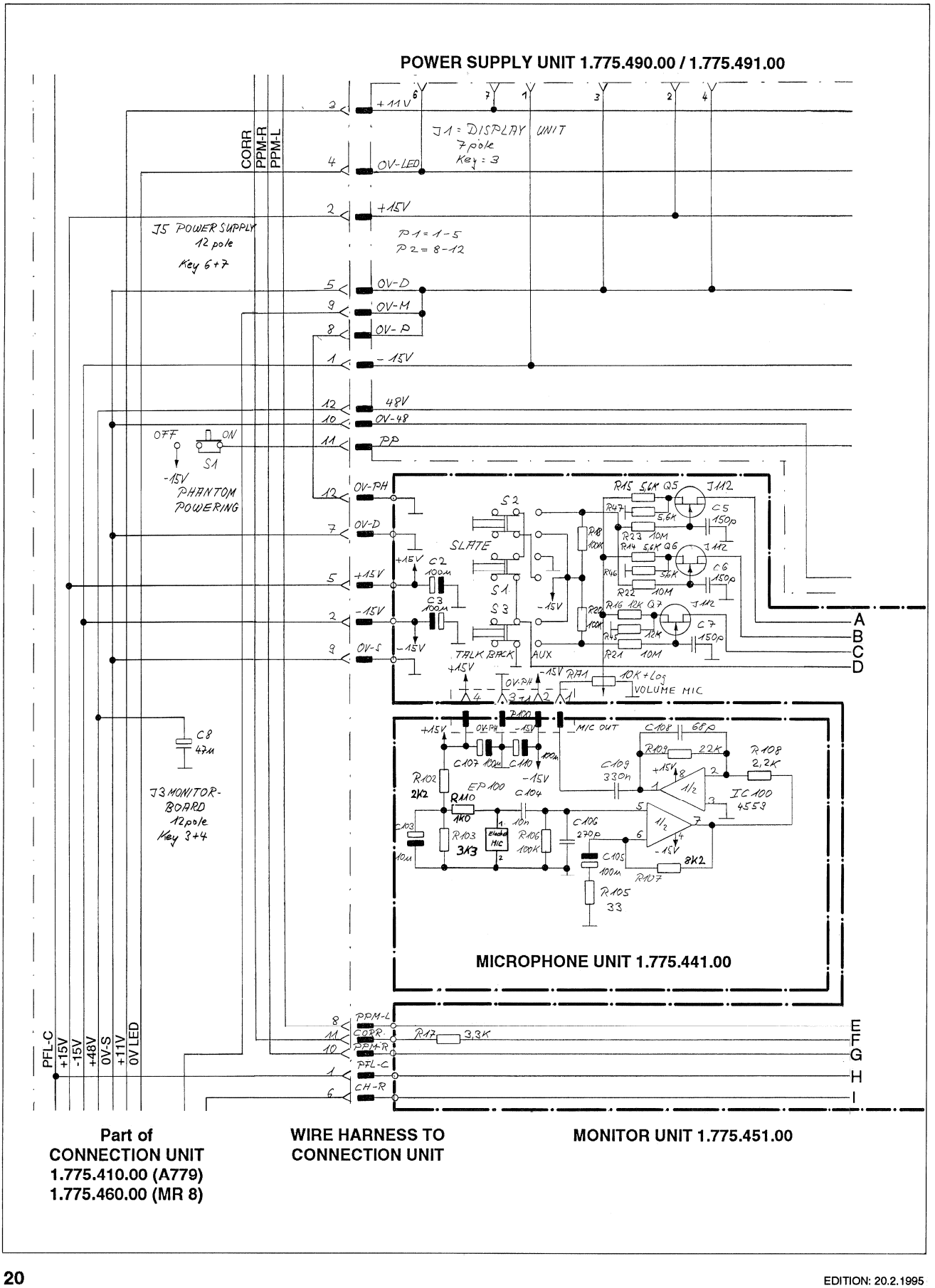
MASTER UNIT 1.775.430.81

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	IC 8	50.09.0121		TL072B	IC TL 072 BCP ,A
0	IC 9	50.09.0107		RC4559	IC RC 4559 N, UPC 4559 ,A
0	IC 10	50.11.0140		THAT2181C	IC VCA THAT 2181C
0	IC 11	50.11.0140		THAT2181C	IC VCA THAT 2181C
0	J 1	54.01.0235		9-P	J LEISTE 9 POL CIS DURCHS
0	J 2	54.14.2074		26p	1/20" Au, winkel, ohne Verrieg
0	MP 1	1.775.430.11	mp		MASTER PCB
0	MP 2	54.01.0264	mp		P GEHAUSE 5 POL CIS
0	MP 3	54.01.0233	mp		P GEHAUSE 7 POL CIS
0	MP 4	54.01.0286	mp		P GEHAUSE 20 POL CIS
0	MP 5	1.775.370.41	mp		U-PROFIL MASTER
0	MP 6	21.38.1352	3 mp		LZ SCHR. KS, A2, M 3 * 4
0	MP 7	43.01.0108	mp	Label	ESE-WARNSCHILD
0	MP 8	unknown	mp	unbekannt	unbekanntes Bauteil
0	Q 1	50.03.0350		J-112	J-112
0	Q 2	50.03.0350		J-112	J-112
0	Q 3	50.03.0350		J-112	J-112
0	Q 4	50.03.0350		J-112	J-112
0	Q 5	50.03.0350		J-112	J-112
0	Q 6	50.03.0350		J-112	J-112
0	Q 7	50.03.0350		J-112	J-112
0	Q 8	50.03.0350		J-112	J-112
0	Q 9	50.03.0350		J-112	J-112
0	Q 10	50.03.0350		J-112	J-112
0	Q 11	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 12	50.03.0350		J-112	J-112
0	Q 13	50.03.0350		J-112	J-112
0	Q 14	50.03.0350		J-112	J-112
0	Q 15	50.03.0350		J-112	J-112
0	R 1	57.11.3302		3k0	MF, 1%, 0207
0	R 2	57.11.3150		15R	MF, 1%, 0207
0	R 3	57.11.3302		3k0	MF, 1%, 0207
0	R 4	57.11.3302		3k0	MF, 1%, 0207
0	R 5	57.11.3302		3k0	MF, 1%, 0207
0	R 6	57.11.3150		15R	MF, 1%, 0207
0	R 7	57.11.3302		3k0	MF, 1%, 0207
0	R 8	57.11.3302		3k0	MF, 1%, 0207
0	R 9	57.11.3302		3k0	MF, 1%, 0207
0	R 10	57.11.3302		3k0	MF, 1%, 0207
0	R 11	57.11.3302		3k0	MF, 1%, 0207
0	R 12	57.11.3302		3k0	MF, 1%, 0207
0	R 13	57.11.3474		470k	MF, 1%, 0207
0	R 14	57.11.3302		3k0	MF, 1%, 0207
0	R 15	57.11.3474		470k	MF, 1%, 0207
0	R 16	57.11.3302		3k0	MF, 1%, 0207
0	R 17	57.11.3150		15R	MF, 1%, 0207
0	R 18	57.11.3302		3k0	MF, 1%, 0207
0	R 19	57.11.3302		3k0	MF, 1%, 0207
0	R 20	57.11.3302		3k0	MF, 1%, 0207
0	R 21	57.11.3150		15R	MF, 1%, 0207
0	R 22	57.11.3302		3k0	MF, 1%, 0207
0	R 23	57.11.3302		3k0	MF, 1%, 0207
0	R 24	57.11.3474		470k	MF, 1%, 0207
0	R 25	57.11.3302		3k0	MF, 1%, 0207
0	R 26	57.11.3302		3k0	MF, 1%, 0207
0	R 27	57.11.3302		3k0	MF, 1%, 0207
0	R 28	57.11.3302		3k0	MF, 1%, 0207
0	R 29	57.11.3302		3k0	MF, 1%, 0207
0	R 30	57.11.3302		3k0	MF, 1%, 0207
0	R 31	57.11.3474		470k	MF, 1%, 0207
0	R 32	57.11.3474		470k	MF, 1%, 0207
0	R 33	57.11.3302		3k0	MF, 1%, 0207
0	R 34	57.11.3474		470k	MF, 1%, 0207
0	R 35	57.11.3302		3k0	MF, 1%, 0207
0	R 36	57.11.3133		13k	MF, 1%, 0207
0	R 37	57.11.3133		13k	MF, 1%, 0207
0	R 38	57.11.3474		470k	MF, 1%, 0207
0	R 39	57.11.3302		3k0	MF, 1%, 0207
0	R 40	57.11.3302		3k0	MF, 1%, 0207
0	R 41	57.11.3302		3k0	MF, 1%, 0207
0	R 42	57.11.3302		3k0	MF, 1%, 0207
0	R 43	57.11.3302		3k0	MF, 1%, 0207
0	R 44	57.11.3302		3k0	MF, 1%, 0207
0	R 45	57.11.3474		470k	MF, 1%, 0207
0	R 46	57.11.3133		13k	MF, 1%, 0207
0	R 47	57.11.3101		100R	MF, 1%, 0207
0	R 48	57.11.3101		100R	MF, 1%, 0207
0	R 49	57.11.5106		10M	MF, 5%, 0207
0	R 50	57.11.3223		22k	MF, 1%, 0207
0	R 51	57.11.3133		13k	MF, 1%, 0207
0	R 52	57.11.3133		13k	MF, 1%, 0207
0	R 53	57.11.5106		10M	MF, 5%, 0207
0	R 54	57.11.5106		10M	MF, 5%, 0207
0	R 55	57.11.5106		10M	MF, 5%, 0207
0	R 56	57.11.3104		100k	MF, 1%, 0207
0	R 57	57.11.3104		100k	MF, 1%, 0207
0	R 59	57.11.3123		12k	MF, 1%, 0207
0	R 60	57.11.3474		470k	MF, 1%, 0207
0	R 61	57.11.3123		12k	MF, 1%, 0207
0	R 62	57.11.3474		470k	MF, 1%, 0207
0	R 64	57.11.5106		10M	MF, 5%, 0207
0	R 65	57.11.5106		10M	MF, 5%, 0207
0	R 66	57.11.3392		3k9	MF, 1%, 0207
0	R 67	57.11.3104		100k	MF, 1%, 0207
0	R 68	57.11.3272		2k7	MF, 1%, 0207
0	R 69	57.11.3133		13k	MF, 1%, 0207
0	R 70	57.11.3103		10k	MF, 1%, 0207
0	R 71	57.11.3510		51R	MF, 1%, 0207
0	R 72	57.11.3104		100k	MF, 1%, 0207
0	R 73	57.11.3392		3k9	MF, 1%, 0207
0	R 74	57.11.3103		10k	MF, 1%, 0207
0	R 75	57.11.3510		51R	MF, 1%, 0207
0	R 76	57.11.3104		100k	MF, 1%, 0207
0	R 77	57.11.3133		13k	MF, 1%, 0207
0	R 78	57.11.5106		10M	MF, 5%, 0207
0	R 79	57.11.5106		10M	MF, 5%, 0207
0	R 80	57.11.3272		2k7	MF, 1%, 0207
0	R 81	57.11.3104		100k	MF, 1%, 0207
0	R 82	57.11.5106		10M	MF, 5%, 0207
0	R 83	57.11.5106		10M	MF, 5%, 0207
0	R 84	57.11.3104		100k	MF, 1%, 0207
0	R 85	57.11.3224		220k	MF, 1%, 0207
0	R 86	57.11.3473		47k	MF, 1%, 0207
0	R 87	57.11.3104		100k	MF, 1%, 0207
0	R 88	57.11.3273		27k	MF, 1%, 0207
0	R 89	57.11.5106		10M	MF, 5%, 0207
0	R 90	57.11.5106		10M	MF, 5%, 0207
0	R 91	57.11.3104		100k	MF, 1%, 0207
0	R 92	57.11.5106		10M	MF, 5%, 0207
0	R 93	57.11.5106		10M	MF, 5%, 0207
0	R 94	57.11.3103		10k	MF, 1%, 0207
0	R 95	57.11.3273		27k	MF, 1%, 0207
0	R 96	57.11.3103		10k	MF, 1%, 0207
0	R 97	57.11.3474		470k	MF, 1%, 0207
0	R 98	57.11.3103		10k	MF, 1%, 0207
0	R 100	57.11.3821		820R	MF, 1%, 0207
0	R 101	57.11.3821		820R	MF, 1%, 0207
0	R 102	57.11.3272		2k7	MF, 1%, 0207
0	R 103	57.11.3272		2k7	MF, 1%, 0207
0	R 104	57.11.3162		1k6	MF, 1%, 0207
0	R 105	57.11.3513		51k	MF, 1%, 0207
0	R 106	57.11.5106		10M	MF, 5%, 0207
0	R 107	57.11.3104		100k	MF, 1%, 0207
0	R 108	57.11.3101		100R	MF, 1%, 0207
0	R 109	57.11.3223		22k	MF, 1%, 0207
0	R 110	57.11.3820		82R	MF, 1%, 0207
1	R 111	57.11.3332		3k3	MF, 1%, 0207
1	R 112	57.11.3151		150R	MF, 1%, 0207
0	R 113	57.11.3223		22k	MF, 1%, 0207
0	R 114	57.11.3151		150R	MF, 1%, 0207
0	R 115	57.11.3302		3k0	MF, 1%, 0207
0	R 116	57.11.3133		13k	MF, 1%, 0207
0	R 117	57.11.3223		22k	MF, 1%, 0207
0	R 118	57.11.3104		100k	MF, 1%, 0207
0	R 119	57.11.3104		100k	MF, 1%, 0207
0	R 120	57.11.3271		270R	MF, 1%, 0207
0	RA 1	58.01.9503		50k	Cermet, 10%, 0.5W, vertical
0	RA 2	58.01.9503		50k	Cermet, 10%, 0.5W, vertical
0	RA 3	1.775.430.02			POTENTIOMETER 10K LIN.
0	RA 4	1.775.430.03			POTENTIOMETER 2*10K LIN.
0	RA 5	1.775.330.07			VARIABLE RESISTOR
0	RA 6	58.01.9501		500R	Cermet, 10%, 0.5W, vertical
1	RA 7	58.01.9102		1k	Cermet, 10%, 0.5W, vertical
0	W 1	1.775.430.93			LI-L MASTER UNIT

Comments

(01) R111 18kOhm changed to 3.3 kOhm, R112 470 Ohm to 150 Ohm, RA7 new, C41 replaced by D3

MONITOR UNIT 1.775.451.00
- MICROPHONE UNIT 1.775.441.00

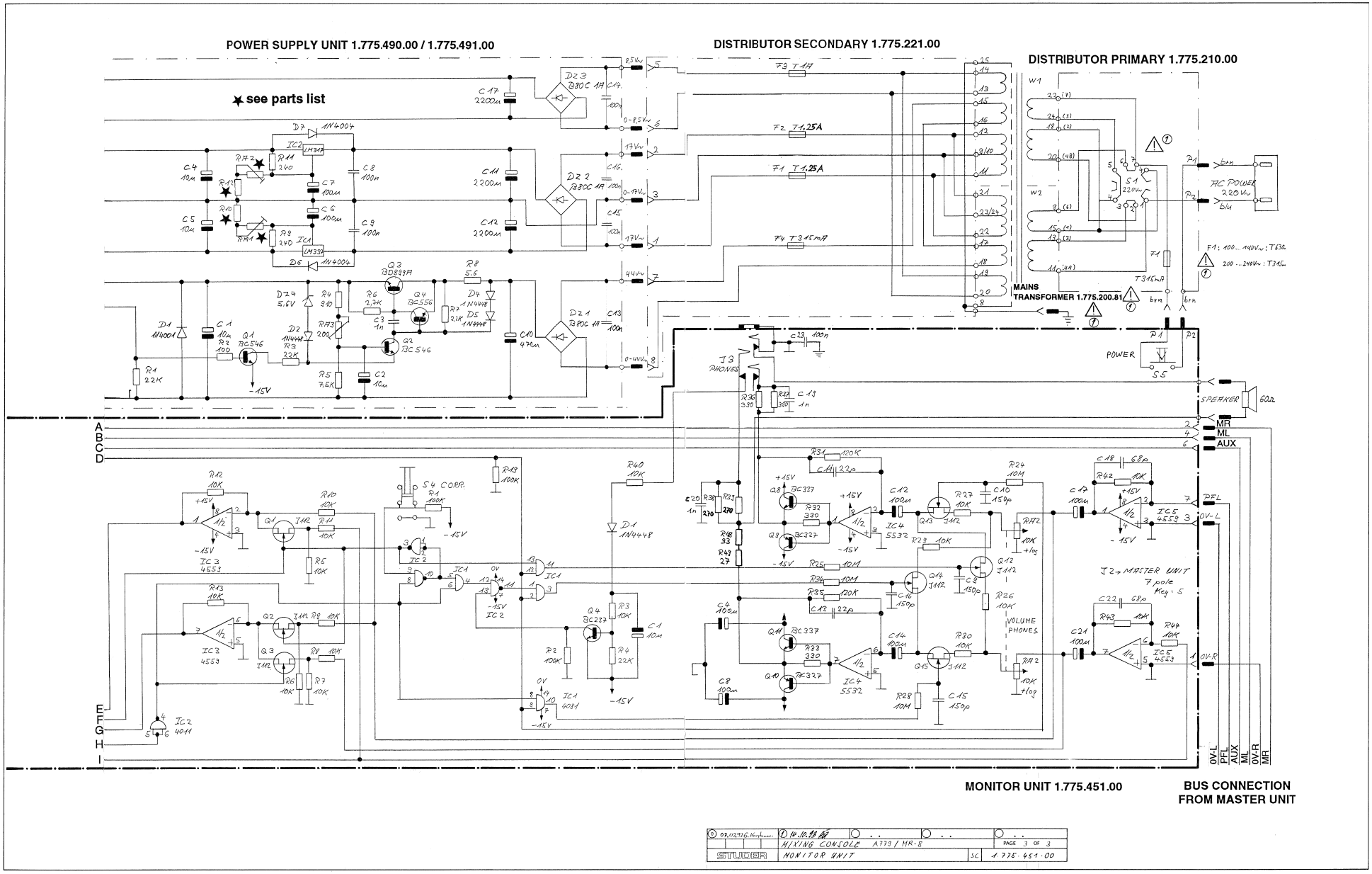


Part of
CONNECTION UNIT
1.775.410.00 (A779)
1.775.460.00 (MR 8)

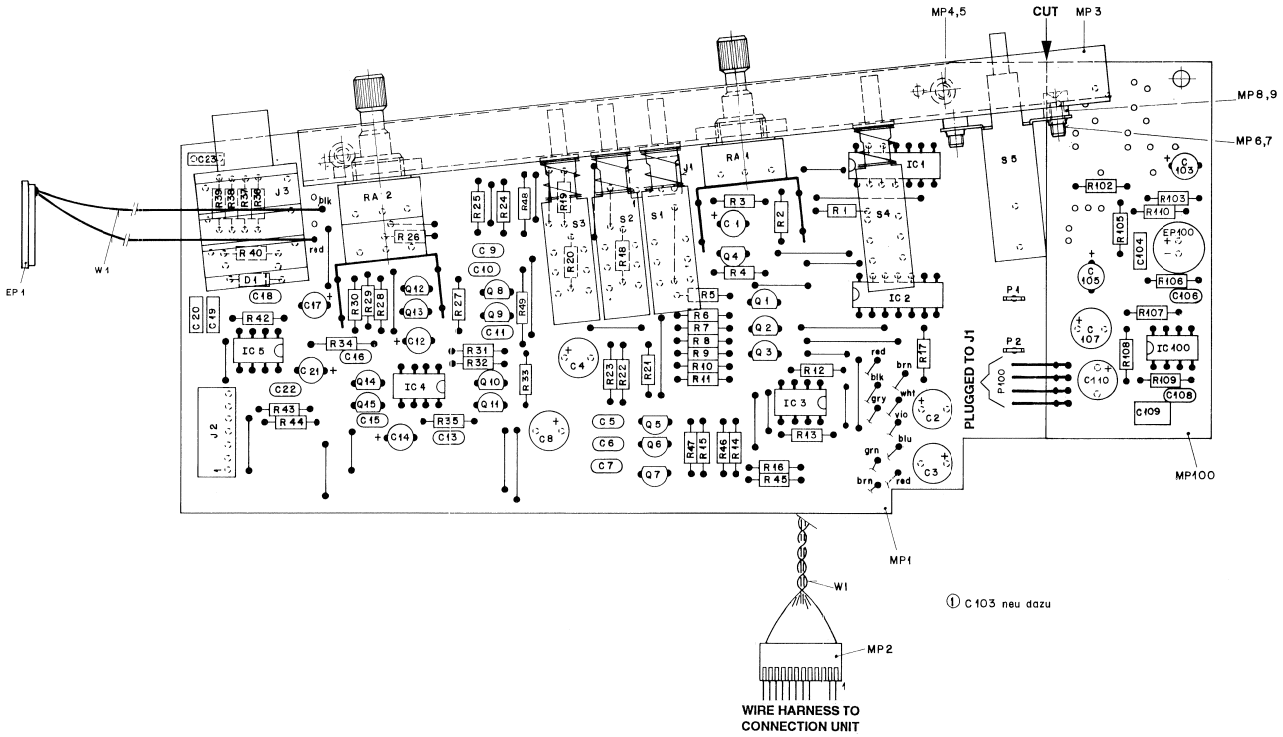
WIRE HARNESS TO
CONNECTION UNIT

MONITOR UNIT 1.775.451.00

MONITOR UNIT 1.775.451.00
- MICROPHONE UNIT 1.775.441.00



MONITOR UNIT 1.775.451.00



Ausgabe	Datum	Gez.	Gepr.	Ges.	Index
Änderung	30.4.92				①
	12.12.91				⓪

Kopie für:

STUDER REGENSDORF ZÜRICH — Benennung: MONITOR UNIT ESE — Nummer: 1.775.451-00

Ad	..POS..	...REF.No...	DESCRIPTION		MANUFACTURER
	C.....1	59.22.6100	10 uF	-20%, 10V, EL	
	C.....2	59.22.5101	100 uF	-20%, 25V, EL	
	C.....3	59.22.5101	100 uF	-20%, 25V, EL	
	C.....4	59.22.5101	100 uF	-20%, 25V, EL	
	C.....5	59.34.4151	150 pF	10%, 25V, C	
	C.....6	59.34.4151	150 pF	10%, 25V, C	
	C.....7	59.34.4151	150 pF	10%, 25V, C	
	C.....8	59.22.5101	100 uF	-20%, 25V, EL	
	C.....9	59.34.4151	150 pF	10%, 25V, C	
	C....10	59.34.4151	150 pF	10%, 25V, C	
	C....11	59.34.2220	22 pF	10%, 25V, C	
	C....12	59.22.3101	100 uF	-20%, 10V, EL	
	C....13	59.34.2220	22 pF	10%, 25V, C	
	C....14	59.22.3101	100 uF	-20%, 10V, EL	
	C....15	59.34.4151	150 pF	10%, 25V, C	
	C....16	59.34.4151	150 pF	10%, 25V, C	
	C....17	59.22.3101	100 uF	-20%, 10V, EL	
	C....18	59.34.4680	68 pF	10%, 25V, C	
	C....19	59.06.0102	1 nF	10%, 25V, PETP	
	C....20	59.06.0102	1 nF	10%, 25V, PETP	
	C....21	59.22.3101	100 uF	-20%, 10V, EL	
	C....22	59.34.4680	68 pF	10%, 25V, C	
	C....23	59.06.0104	100 nF	10%, 25V, PETP	
	C...103	59.22.6100	10 uF	-20%, 25V, EL	
	C...104	59.06.0103	10 nF	10%, 25V, PETP	
	C...105	59.22.3101	100 uF	-20%, 10V, EL	
	C...106	59.34.4271	270 pF	10%, 25V, C	
	C...107	59.22.5101	100 uF	-20%, 25V, EL	
	C...108	59.34.4680	68 pF	10%, 25V, C	
	C...109	59.06.0334	330 nF	10%, 25V, PETP	
	C...110	59.22.5101	100 uF	-20%, 25V, EL	
	D.....1	50.04.0125	1N 4448	any	
	EP....1	71.01.0158		Lautspeaker 600hm 0.3W	
	EP..100	89.01.3450		Electret Microphone, EM 80	
	IC....1	50.07.0081	4081	AND Gate	
	IC....2	50.07.1011	4011	NAND Gate	
	IC....3	50.09.0107	RC4559		Ra
	IC....4	50.09.0105	NE5532A		Sig
	IC....5	50.09.0107	RC4559		Ra
	IC..100	50.09.0107	RC4559		Ra
	J.....1	54.01.0298	4-Pole	CIS	
	J.....2	54.01.0263	7-Pole	CIS	
	J.....3	1.710.350.02	Stereo	Jack Socket	
	MP....1	1.775.451.11		MONITOR PCB	
	MP....2	54.01.0231	12-Pole	CIS	
	MP....3	1.775.370.22		U-Profile	
	MP....4	21.38.1352		Screw	
	MP....5	21.38.1352		Screw	
	MP....6	21.26.0355		Screw	
	MP....7	21.26.0355		Screw	
	MP....8	1.775.370.30		Washer	
	MP....9	1.775.370.30		Washer	
	MP..100	1.775.441.11		MICROPHONE PCB	
	P.....1	54.02.0320	2.8mm	AMP	
	P.....2	54.02.0320	2.8mm	AMP	
	P...100	54.01.0424	4-Pole	CIS	
	Q.....1	50.03.0350	J 112	FET	Mot
	Q.....2	50.03.0350	J 112	FET	Mot
	Q.....3	50.03.0350	J 112	FET	Mot
	Q.....4	50.03.0436	BC 237	NPN	
	Q.....5	50.03.0350	J 112	FET	Mot
	Q.....6	50.03.0350	J 112	FET	Mot
	Q.....7	50.03.0350	J 112	FET	Mot
	Q.....8	50.03.0340	BC 337	NPN	
	Q.....9	50.03.0351	BC 327	PNP	
	Q....10	50.03.0351	BC 327	PNP	
	Q....11	50.03.0340	BC 337	NPN	
	Q....12	50.03.0350	J 112	FET	Mot
	Q....13	50.03.0350	J 112	FET	Mot
	Q....14	50.03.0350	J 112	FET	Mot
	Q....15	50.03.0350	J 112	FET	Mot
	R.....1	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R.....2	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R.....3	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R.....4	57.11.3223	22 KOhm	1%, 0.25W, MF	
	R.....5	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R.....6	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R.....7	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R.....8	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R.....9	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....10	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....11	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....12	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....13	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....14	57.11.3562	5.6 KOhm	1%, 0.25W, MF	
	R....15	57.11.3562	5.6 KOhm	1%, 0.25W, MF	
	R....16	57.11.3123	12 KOhm	1%, 0.25W, MF	
	R....17	57.11.3332	3.3 KOhm	1%, 0.25W, MF	
	R....18	57.11.3104	100 KOhm	1%, 0.25W, MF	

MONITOR UNIT 1.775.451.00

Ad	..POS..	...REF.No...	DESCRIPTION		MANUFACTURER
	R....19	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....20	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....21	57.11.5106	10 MOhm	5%, 0.25W, MF	
	R....22	57.11.5106	10 MOhm	5%, 0.25W, MF	
	R....23	57.11.5106	10 MOhm	5%, 0.25W, MF	
	R....24	57.11.5106	10 MOhm	5%, 0.25W, MF	
	R....25	57.11.5106	10 MOhm	5%, 0.25W, MF	
	R....26	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....27	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....28	57.11.5106	10 MOhm	5%, 0.25W, MF	
	R....29	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....30	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....31	57.11.3124	120 KOhm	1%, 0.25W, MF	
	R....32	57.11.3331	330 Ohm	1%, 0.25W, MF	
	R....33	57.11.3331	330 Ohm	1%, 0.25W, MF	
	R....34	57.11.5106	10 MOhm	5%, 0.25W, MF	
	R....35	57.11.3124	120 KOhm	1%, 0.25W, MF	
	R....36	57.11.3391	390 Ohm	1%, 0.25W, MF	
	R....37	57.11.3391	390 Ohm	1%, 0.25W, MF	
	R....38	57.11.3271	270 Ohm	1%, 0.25W, MF	
	R....39	57.11.3271	270 Ohm	1%, 0.25W, MF	
	R....40	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....42	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....43	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....44	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....45	57.11.3123	12 KOhm	1%, 0.25W, MF	
	R....46	57.11.3562	5.6 KOhm	1%, 0.25W, MF	
	R....47	57.11.3562	5.6 KOhm	1%, 0.25W, MF	
	R....48	57.11.3330	33 Ohm	1%, 0.25W, MF	
	R....49	57.11.3270	27 Ohm	1%, 0.25W, MF	
	R...102	57.11.3222	2.2 KOhm	1%, 0.25W, MF	
	R...103	57.11.3332	3.3 KOhm	1%, 0.25W, MF	
	R...105	57.11.3330	33 Ohm	1%, 0.25W, MF	
	R...106	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R...107	57.11.3822	8.2 KOhm	1%, 0.25W, MF	
	R...108	57.11.3222	2.2 KOhm	1%, 0.25W, MF	
	R...109	57.11.3223	22 KOhm	1%, 0.25W, MF	
	R...110	57.11.3102	1 KOhm	1%, 0.25W, MF	
	RA....1	1.775.340.01	1*10 KOhm	pos.log	
	RA....2	1.775.350.01	2*10 KOhm	pos.log	
	S.....1	55.15.0110		1*2u	
	S.....2	55.15.0110		1*2u	
	S.....3	55.15.0110		1*2u	
	S.....4	55.15.0110		1*2u	
	S.....5	55.03.0286		Power Switch	
	W.....1	1.775.450.93		Wire List	

EL=Electrolytic, C=Ceramic, PETP=Polyester

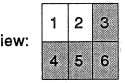
MF=Metal Film

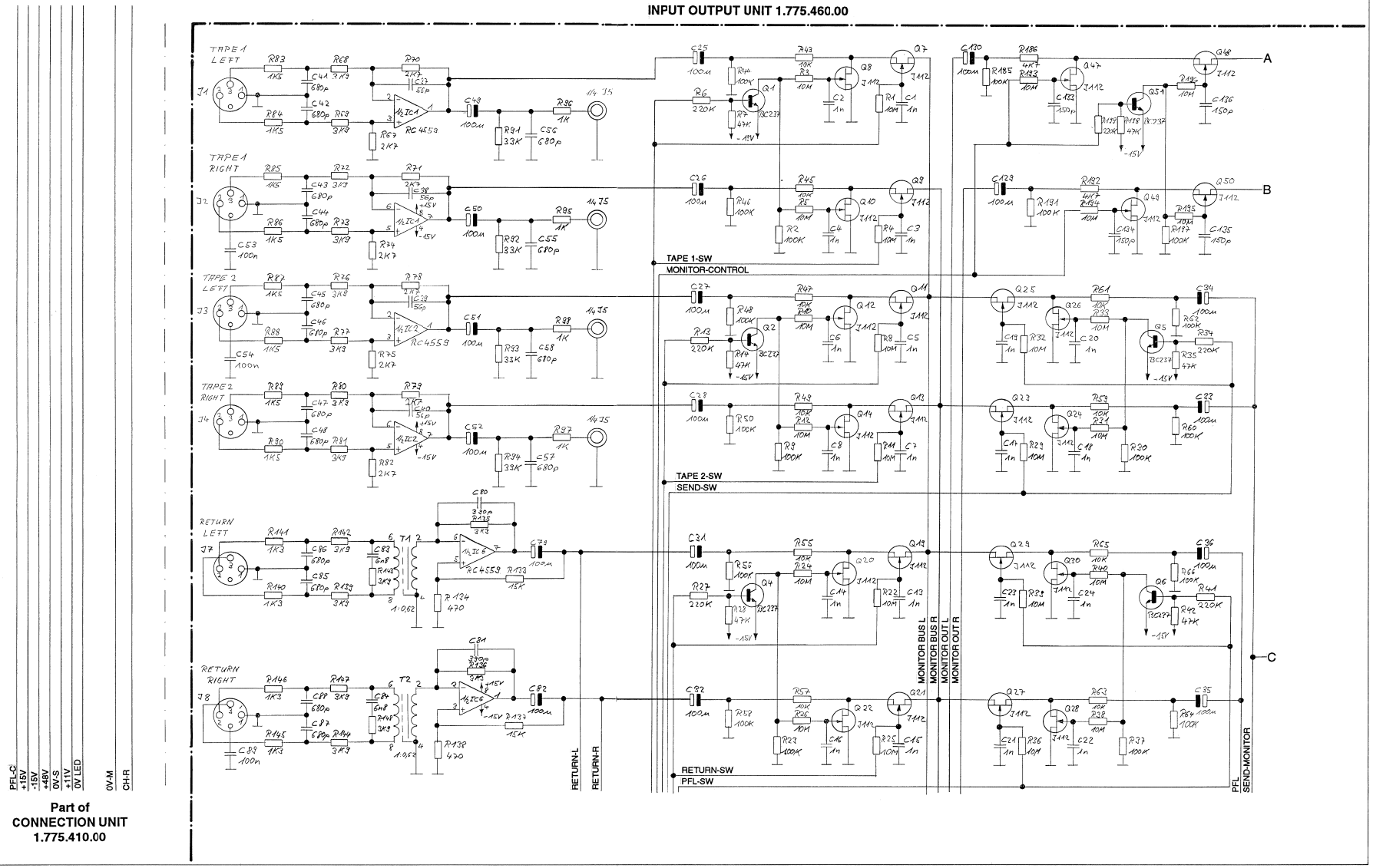
MANUFACTURER: Ra=Raytheon,Mot=Motorola,Sig=Signetics

1.775.451.00 MONITOR UNIT KG 92/01/2200

INPUT OUTPUT UNIT 1.775.460.00
- C.R. MONITOR UNIT 1.775.470.00

Overview:

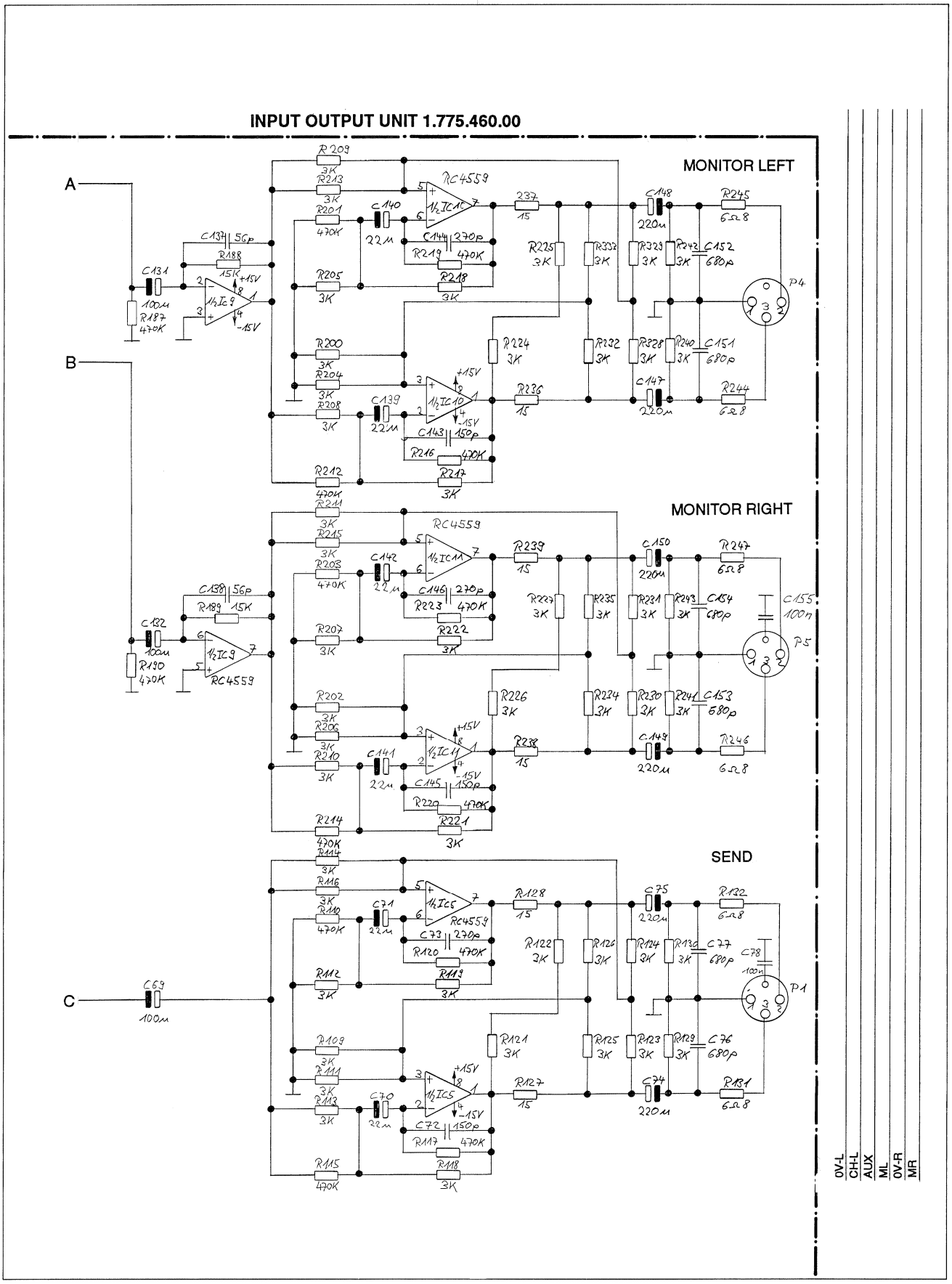




INPUT OUTPUT UNIT 1.775.460.00
- C.R. MONITOR UNIT 1.775.470.00

Overview:

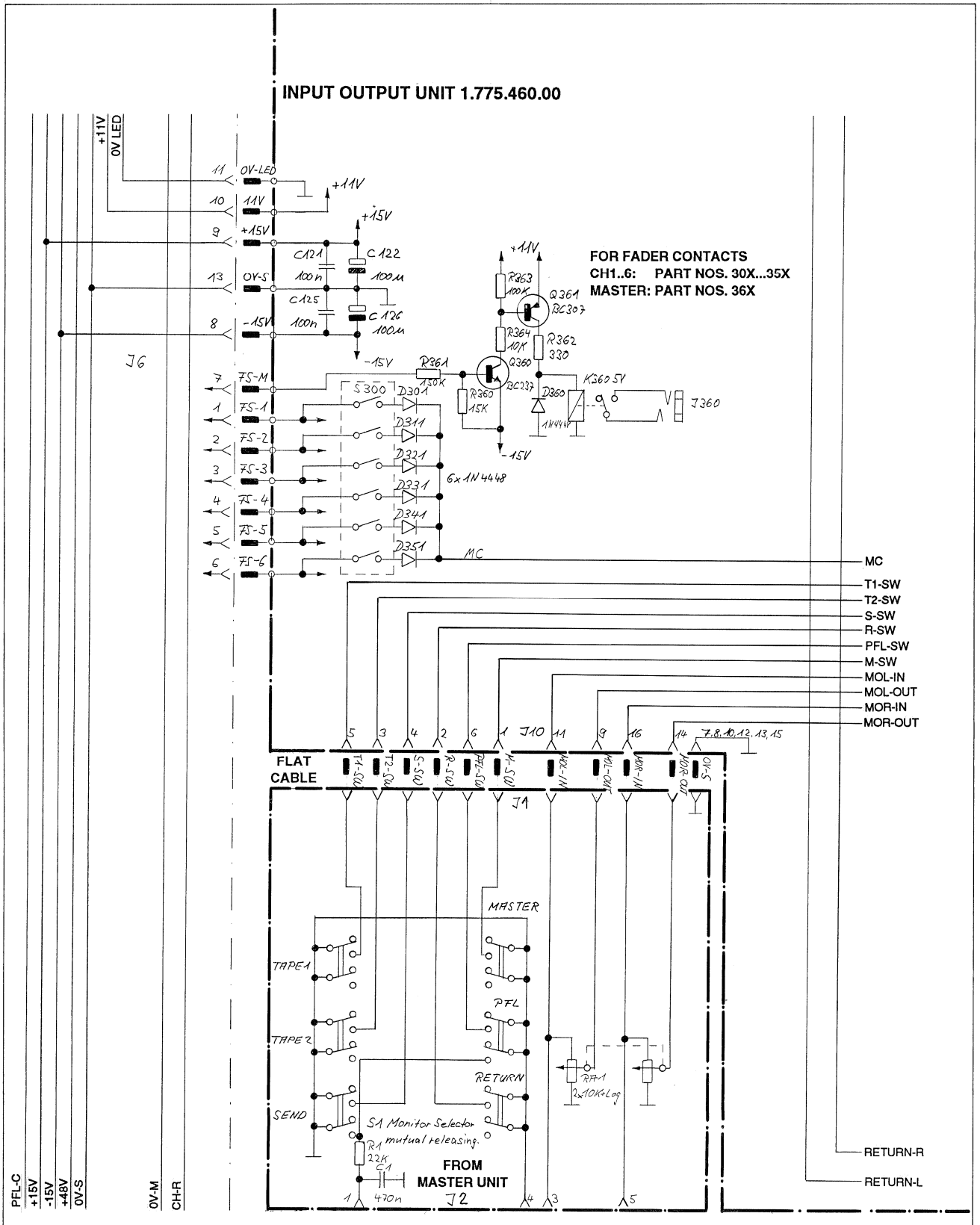
1	2	3
4	5	6



INPUT OUTPUT UNIT 1.775.460.00
- C.R. MONITOR UNIT 1.775.470.00

Overview:

1	2	3
4	5	6



Part of CONNECTION UNIT 1.775.410.00

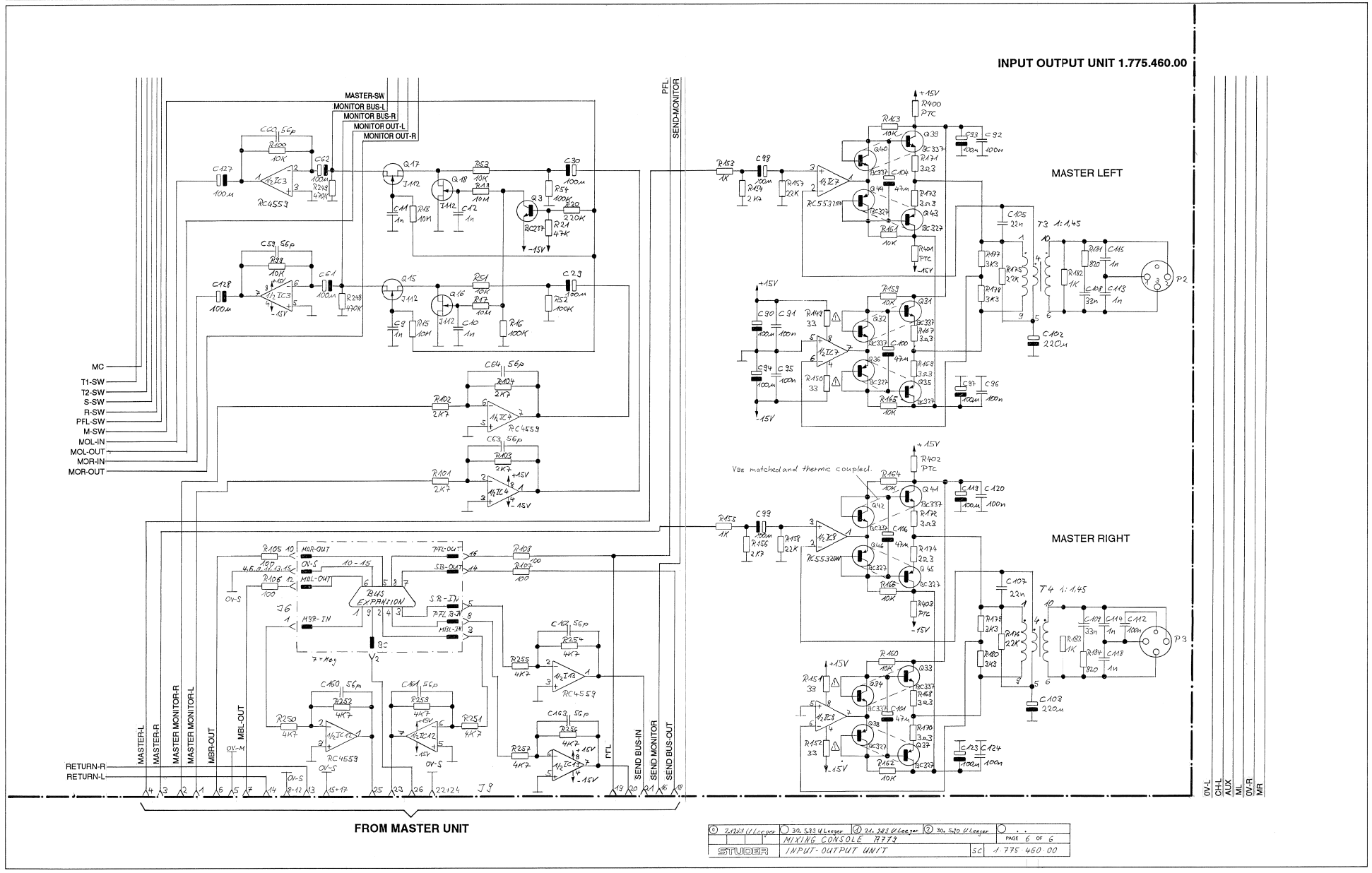
WIRE HARNESS TO CONNECTION UNIT

C.R. MONITOR UNIT 1.775.470.00

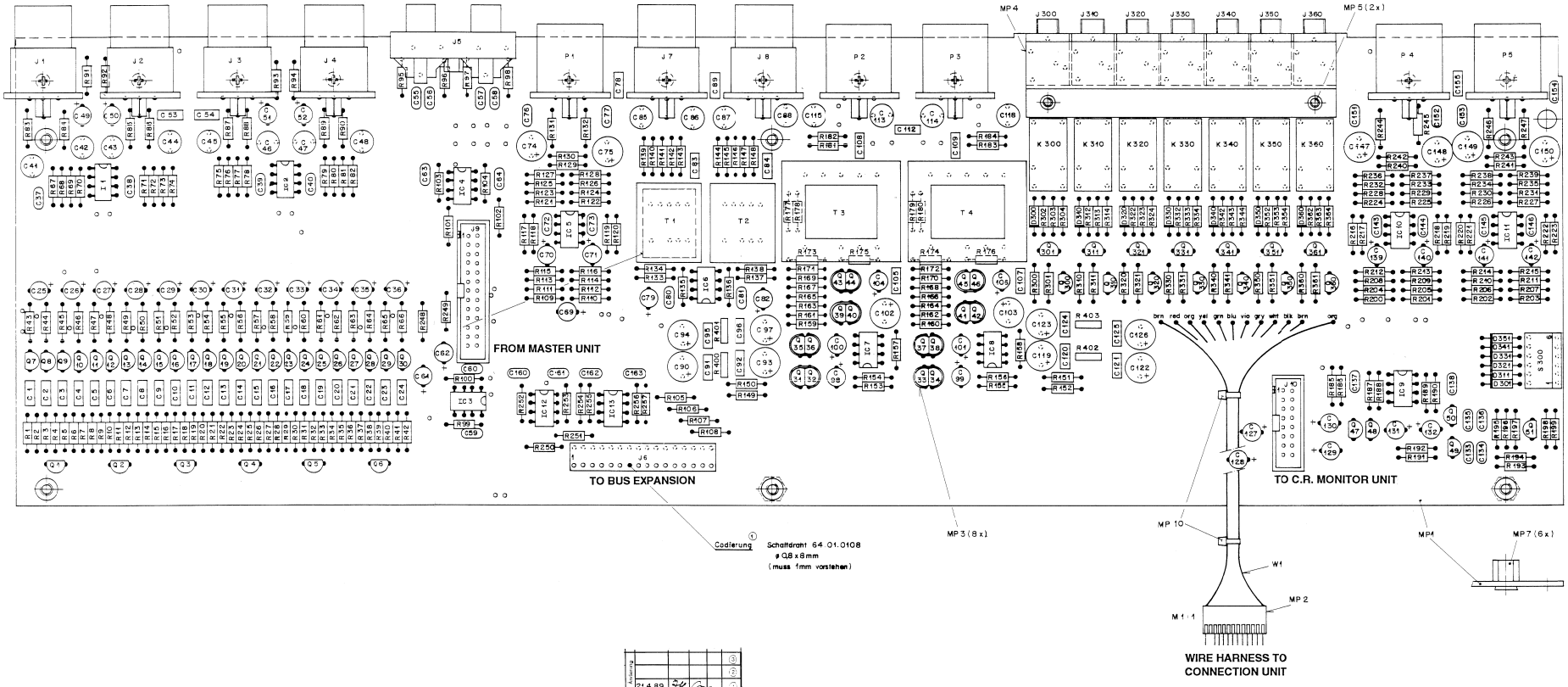
INPUT OUTPUT UNIT 1.775.460.00
- C.R. MONITOR UNIT 1.775.470.00

Overview:

1	2	3
4	5	6



INPUT OUTPUT UNIT 1.775.460.00



Änderung					⑫
					⑪
	21.4.89				⑩
Ausgabe	16.5.89				⑨
Datum	Gez.	Gepr.	Ges.	Index	
Kopie Nr.					

STUDER REGENSDORF ZURICH	INPUT-OUTPUT UNIT ESE	1.775.460-00

INPUT OUTPUT UNIT 1.775.460.00

Ad	..POS..	...REF.No...	DESCRIPTION.....	MANUFACTURER
	C.....1	59.06.0102	1 nF 10%, 25V,	PETP
	C.....2	59.06.0102	1 nF 10%, 25V,	PETP
	C.....3	59.06.0102	1 nF 10%, 25V,	PETP
	C.....4	59.06.0102	1 nF 10%, 25V.	PETP
	C.....5	59.06.0102	1 nF 10%, 25V,	PETP
	C.....6	59.06.0102	1 nF 10%, 25V,	PETP
	C.....7	59.06.0102	1 nF 10%, 25V,	PETP
	C.....8	59.06.0102	1 nF 10%, 25V,	PETP
	C.....9	59.06.0102	1 nF 10%, 25V,	PETP
	C....10	59.06.0102	1 nF 10%, 25V,	PETP
	C....11	59.06.0102	1 nF 10%, 25V,	PETP
	C....12	59.06.0102	1 nF 10%, 25V,	PETP
	C....13	59.06.0102	1 nF 10%, 25V,	PETP
	C....14	59.06.0102	1 nF 10%, 25V,	PETP
	C....15	59.06.0102	1 nF 10%, 25V,	PETP
	C....16	59.06.0102	1 nF 10%, 25V,	PETP
	C....17	59.06.0102	1 nF 10%, 25V,	PETP
	C....18	59.06.0102	1 nF 10%, 25V,	PETP
	C....19	59.06.0102	1 nF 10%, 25V,	PETP
	C....20	59.06.0102	1 nF 10%, 25V,	PETP
	C....21	59.06.0102	1 nF 10%, 25V,	PETP
	C....22	59.06.0102	1 nF 10%, 25V,	PETP
	C....23	59.06.0102	1 nF 10%, 25V,	PETP
	C....24	59.06.0102	1 nF 10%, 25V,	PETP
	C....25	59.22.3101	100 uF -20%, 10V,	EL
	C....26	59.22.3101	100 uF -20%, 10V,	EL
	C....27	59.22.3101	100 uF -20%, 10V,	EL
	C....28	59.22.3101	100 uF -20%, 10V,	EL
	C....29	59.22.3101	100 uF -20%, 10V,	EL
	C....30	59.22.3101	100 uF -20%, 10V,	EL
	C....31	59.22.3101	100 uF -20%, 10V,	EL
	C....32	59.22.3101	100 uF -20%, 10V,	EL
	C....33	59.22.3101	100 uF -20%, 10V,	EL
	C....34	59.22.3101	100 uF -20%, 10V,	EL
	C....35	59.22.3101	100 uF -20%, 10V,	EL
	C....36	59.22.3101	100 uF -20%, 10V,	EL
	C....37	59.34.4560	56 pF 5%, 25V,	C
	C....38	59.34.4560	56 pF 5%, 25V,	C
	C....39	59.34.4560	56 pF 5%, 25V,	C
	C....40	59.34.4560	56 pF 5%, 25V,	C
	C....41	59.05.1681	680 pF 1%, 25V,	PP
	C....42	59.05.1681	680 pF 1%, 25V,	PP
	C....43	59.05.1681	680 pF 1%, 25V,	PP
	C....44	59.05.1681	680 pF 1%, 25V,	PP
	C....45	59.05.1681	680 pF 1%, 25V,	PP
	C....46	59.05.1681	680 pF 1%, 25V,	PP
	C....47	59.05.1681	680 pF 1%, 25V,	PP
	C....48	59.05.1681	680 pF 1%, 25V,	PP
	C....49	59.22.3101	100 uF -20%, 10V,	EL
	C....50	59.22.3101	100 uF -20%, 10V,	EL
	C....51	59.22.3101	100 uF -20%, 10V,	EL
	C....52	59.22.3101	100 uF -20%, 10V,	EL
	C....53	59.06.0104	100 nF 10%, 25V,	PETP
	C....54	59.06.0104	100 nF 10%, 25V,	PETP
	C....55	59.32.2681	680 pF 10%, 25V,	C
	C....56	59.32.2681	680 pF 10%, 25V,	C
	C....57	59.32.2681	680 pF 10%, 25V,	C
	C....58	59.32.2681	680 pF 10%, 25V,	C
	C....59	59.34.4560	56 pF 5%, 25V,	C
	C....60	59.34.4560	56 pF 5%, 25V,	C
	C....61	59.22.3101	100 uF -20%, 10V,	EL
	C....62	59.22.3101	100 uF -20%, 10V,	EL
	C....63	59.34.4560	56 pF 5%, 25V,	C
	C....64	59.34.4560	56 pF 5%, 25V,	C
	C....69	59.22.3101	100 uF -20%, 10V,	EL
	C....70	59.22.5220	22 uF -20%, 10V,	EL
	C....71	59.22.5220	22 uF -20%, 10V,	EL
	C....72	59.34.4151	150 pF 5%, 25V,	C
	C....73	59.34.4271	270 pF 5%, 25V,	C
	C....74	59.22.3221	220 uF -20%, 10V,	EL
	C....75	59.22.3221	220 uF -20%, 10V,	EL
	C....76	59.32.2681	680 pF 10%, 25V,	C
	C....77	59.32.2681	680 pF 10%, 25V,	C
	C....78	59.06.0104	100 nF 10%, 25V,	PETP
	C....79	59.22.3101	100 uF -20%, 10V,	EL
	C....80	59.34.5391	390 pF 5%, 25V,	C
	C....81	59.34.5391	390 pF 5%, 25V,	C
	C....82	59.22.3101	100 uF -20%, 10V,	EL
	C....83	59.06.5682	6.8 nF 5%, 25V,	PETP
	C....84	59.06.5682	6.8 nF 5%, 25V,	PETP
	C....85	59.05.1681	680 pF 1%, 25V,	PP
	C....86	59.05.1681	680 pF 1%, 25V,	PP
	C....87	59.05.1681	680 pF 1%, 25V,	PP
	C....88	59.05.1681	680 pF 1%, 25V,	PP
01	C....89	59.06.0104	100 nF 10%, 25V,	PETP
	C....90	59.22.5101	100 uF -20%, 25V,	EL
	C....91	59.06.0104	100 nF 10%, 25V,	PETP
	C....92	59.06.0104	100 nF 10%, 25V,	PETP
	C....93	59.22.5101	100 uF -20%, 25V,	EL
	C....94	59.22.5101	100 uF -20%, 25V,	EL
	C....95	59.06.0104	100 nF 10%, 25V,	PETP
	C....96	59.06.0104	100 nF 10%, 25V,	PETP
	C....97	59.22.3101	100 uF -20%, 10V,	EL
01	C....97	59.22.5101	100 uF -20%, 25V,	EL
	C....98	59.22.3101	100 uF -20%, 10V,	EL
	C....99	59.22.3101	100 uF -20%, 10V,	EL
	C...100	59.22.3470	47 uF -20%, 10V,	EL

Ad	..POS..	...REF.No...	DESCRIPTION.....	MANUFACTURER
	C...101	59.22.3470	47 uF -20%, 10V,	EL
	C...102	59.22.3221	220 uF -20%, 10V,	EL
	C...103	59.22.3221	220 uF -20%. 10V.	EL
	C...104	59.22.3470	47 uF -20%, 10V,	EL
	C...105	59.06.0223	22 nF 10%, 25V,	PETP
	C...106	59.22.3470	47 uF -20%, 10V,	EL
	C...107	59.06.0223	22 nF 10%, 25V,	PETP
	C...108	59.06.0333	33 nF 10%, 25V,	PETP
	C...109	59.06.0333	33 nF 10%, 25V,	PETP
	C...112	59.06.0104	100 nF 10%, 25V,	PETP
	C...113	59.05.1102	1 nF 1%, 25V,	PP
	C...114	59.05.1102	1 nF 1%, 25V,	PP
	C...115	59.05.1102	1 nF 1%, 25V,	PP
	C...118	59.05.1102	1 nF 1%, 25V,	PP
	C...119	59.22.5101	100 uF -20%, 25V,	EL
	C...120	59.06.0104	100 nF 10%, 25V,	PETP
	C...121	59.06.0104	100 nF 10%, 25V,	PETP
	C...122	59.22.5101	100 uF -20%, 25V,	EL
	C...123	59.22.5101	100 uF -20%, 25V,	EL
	C...124	59.06.0104	100 nF 10%, 25V,	PETP
	C...125	59.06.0104	100 nF 10%, 25V,	PETP
	C...126	59.22.5101	100 uF -20%, 25V,	EL
	C...127	59.22.3101	100 uF -20%, 10V,	EL
	C...128	59.22.3101	100 uF -20%, 10V,	EL
	C...129	59.22.3101	100 uF -20%, 10V,	EL
	C...130	59.22.3101	100 uF -20%, 10V,	EL
	C...131	59.22.3101	100 uF -20%, 10V,	EL
	C...132	59.22.3101	100 uF -20%, 10V,	EL
	C...133	59.34.4151	150 pF 5%, 25V,	C
	C...134	59.34.4151	150 pF 5%, 25V,	C
	C...135	59.34.4151	150 pF 5%, 25V,	C
	C...136	59.34.4151	150 pF 5%, 25V,	C
	C...137	59.34.4560	56 pF 5%, 25V,	C
	C...138	59.34.4560	56 pF 5%, 25V,	C
	C...139	59.22.5220	22 uF -20%, 10V,	EL
	C...140	59.22.5220	22 uF -20%, 10V,	EL
	C...141	59.22.5220	22 uF -20%, 10V,	EL
	C...142	59.22.5220	22 uF -20%, 10V,	EL
	C...143	59.34.4151	150 pF 5%, 25V,	C
	C...144	59.34.4271	270 pF 5%, 25V,	C
	C...145	59.34.4151	150 pF 5%, 25V,	C
	C...146	59.34.4271	270 pF 5%, 25V,	C
	C...147	59.22.3221	220 uF -20%, 10V,	EL
	C...148	59.22.3221	220 uF -20%, 10V,	EL
	C...149	59.22.3221	220 uF -20%, 10V,	EL
	C...150	59.22.3221	220 uF -20%, 10V,	EL
	C...151	59.32.2681	680 pF 10%, 25V,	C
	C...152	59.32.2681	680 pF 10%, 25V,	C
	C...153	59.32.2681	680 pF 10%, 25V,	C
	C...154	59.32.2681	680 pF 10%, 25V,	C
	C...155	59.06.0104	100 nF 10%, 25V,	PETP
	C...160	59.34.4560	56 pF 5%, 25V,	C
	C...161	59.34.4560	56 pF 5%, 25V,	C
	C...162	59.34.4560	56 pF 5%, 25V,	C
	C...163	59.34.4560	56 pF 5%, 25V,	C
	D...300	50.04.0125	1N 4448	
	D...301	50.04.0125	1N 4448	
	D...310	50.04.0125	1N 4448	
	D...311	50.04.0125	1N 4448	
	D...320	50.04.0125	1N 4448	
	D...321	50.04.0125	1N 4448	
	D...330	50.04.0125	1N 4448	
	D...331	50.04.0125	1N 4448	
	D...340	50.04.0125	1N 4448	
	D...341	50.04.0125	1N 4448	
	D...350	50.04.0125	1N 4448	
	D...351	50.04.0125	1N 4448	
	D...360	50.04.0125	1N 4448	
	IC....1	50.09.0118	RC4562	Ra
02	IC....1	50.09.0107	RC4559	Ra
	IC....2	50.09.0118	RC4562	Ra
02	IC....2	50.09.0107	RC4559	Ra
	IC....3	50.09.0118	RC4562	Ra
02	IC....3	50.09.0107	RC4559	Ra
	IC....4	50.09.0118	RC4562	Ra
02	IC....4	50.09.0107	RC4559	Ra
	IC....5	50.09.0118	RC4562	Ra
02	IC....5	50.09.0107	RC4559	Ra
	IC....6	50.09.0118	RC4562	Ra
02	IC....6	50.09.0107	RC4559	Ra
	IC....7	50.09.0118	RC4562	Ra
02	IC....7	50.09.0106	RC5532AN	Ra
	IC....8	50.09.0118	RC4562	Ra
02	IC....8	50.09.0106	RC5532AN	Ra
	IC....9	50.09.0118	RC4562	Ra
02	IC....9	50.09.0107	RC4559	Ra
	IC...10	50.09.0118	RC4562	Ra
02	IC...10	50.09.0107	RC4559	Ra
	IC...11	50.09.0118	RC4562	Ra
02	IC...11	50.09.0107	RC4559	Ra

INPUT OUTPUT UNIT 1.775.460.00

Ad	..POS..	...REF.No...	DESCRIPTION		MANUFACTURER
	IC...12	50.09.0118	RC4562		Ra
02	IC...12	50.09.0107	RC4559		Ra
	IC...13	50.09.0118	RC4562		Ra
02	IC...13	50.09.0107	RC4559		Ra
	J.....1	54.21.2201		XLR	
	J.....2	54.21.2201		XLR	
	J.....3	54.21.2201		XLR	
	J.....4	54.21.2201		XLR	
	J.....5	54.21.2007	4-Pole	Cinch	
	J.....6	54.01.0294	16-Pole	CIS	
	J.....7	54.21.2201		XLR	
	J.....8	54.21.2201		XLR	
	J.....9	54.14.2003	26-Pole	Connector for Flat-Cabel	
	J....10	54.14.2002	16-Pole	Connector for Flat-Cabel	
	J...300	54.24.0109		mini Jack	
	J...310	54.24.0109		mini Jack	
	J...320	54.24.0109		mini Jack	
	J...330	54.24.0109		mini Jack	
	J...340	54.24.0109		mini Jack	
	J...350	54.24.0109		mini Jack	
	J...360	54.24.0109		mini Jack	
	K...300	56.04.0190	5V	Relais	
	K...310	56.04.0190	5V	Relais	
	K...320	56.04.0190	5V	Relais	
	K...330	56.04.0190	5V	Relais	
	K...340	56.04.0190	5V	Relais	
	K...350	56.04.0190	5V	Relais	
	K...360	56.04.0190	5V	Relais	
	MP....1	1.775.460.11		INPUT-OUTPUT PCB	
	MP....2	54.01.0281	13-Pole	CIS	
	MP....3	50.20.2001	8 pcs	Thermo Clip	
	MP....4	1.775.400.03		Holder	
	MP....5	21.38.1352	2 pcs	Screw	
	MP....6	20.99.0103	11 pcs	Screw	
	MP....7	1.010.017.22	6 pcs	Tubular-Rivet	
	MP....8	43.01.0108		ESE Label	
	MP....9	1.775.460.01		Nr. Label	
	MP...10	35.03.0109	2 pcs	Mounting-Belt	
	P.....1	54.21.2200		XLR	
	P.....2	54.21.2200		XLR	
	P.....3	54.21.2200		XLR	
	P.....4	54.21.2200		XLR	
	P.....5	54.21.2200		XLR	
	Q.....1	50.03.0436	BC237	NPN	
	Q.....2	50.03.0436	BC237	NPN	
	Q.....3	50.03.0436	BC237	NPN	
	Q.....4	50.03.0436	BC237	NPN	
	Q.....5	50.03.0436	BC237	NPN	
	Q.....6	50.03.0436	BC237	NPN	
	Q.....7	50.03.0350	J 112	FET	Mot
	Q.....8	50.03.0350	J 112	FET	Mot
	Q.....9	50.03.0350	J 112	FET	Mot
	Q....10	50.03.0350	J 112	FET	Mot
	Q....11	50.03.0350	J 112	FET	Mot
	Q....12	50.03.0350	J 112	FET	Mot
	Q....13	50.03.0350	J 112	FET	Mot
	Q....14	50.03.0350	J 112	FET	Mot
	Q....15	50.03.0350	J 112	FET	Mot
	Q....16	50.03.0350	J 112	FET	Mot
	Q....17	50.03.0350	J 112	FET	Mot
	Q....18	50.03.0350	J 112	FET	Mot
	Q....19	50.03.0350	J 112	FET	Mot
	Q....20	50.03.0350	J 112	FET	Mot
	Q....21	50.03.0350	J 112	FET	Mot
	Q....22	50.03.0350	J 112	FET	Mot
	Q....23	50.03.0350	J 112	FET	Mot
	Q....24	50.03.0350	J 112	FET	Mot
	Q....25	50.03.0350	J 112	FET	Mot
	Q....26	50.03.0350	J 112	FET	Mot
	Q....27	50.03.0350	J 112	FET	Mot
	Q....28	50.03.0350	J 112	FET	Mot
	Q....29	50.03.0350	J 112	FET	Mot
	Q....30	50.03.0350	J 112	FET	Mot
	Q....31	50.03.0516	BC337	NPN match	
	Q....32	50.03.0516	BC337	NPN match	
	Q....33	50.03.0516	BC337	NPN match	
	Q....34	50.03.0516	BC337	NPN match	
	Q....35	50.03.0625	BC327	PNP match	
	Q....36	50.03.0625	BC327	PNP match	
	Q....37	50.03.0625	BC327	PNP match	
	Q....38	50.03.0625	BC327	PNP match	
	Q....39	50.03.0516	BC337	NPN match	
	Q....40	50.03.0516	BC337	NPN match	
	Q....41	50.03.0516	BC337	NPN match	
	Q....42	50.03.0516	BC337	NPN match	
	Q....43	50.03.0625	BC327	PNP match	
	Q....44	50.03.0625	BC327	PNP match	
	Q....45	50.03.0625	BC327	PNP match	
	Q....46	50.03.0625	BC327	PNP match	
	Q....47	50.03.0350	J 112	FET	Mot
	Q....48	50.03.0350	J 112	FET	Mot
	Q....49	50.03.0350	J 112	FET	Mot
	Q....50	50.03.0350	J 112	FET	Mot
	Q....51	50.03.0436	BC 237	NPN	

Ad	..POS..	...REF.No...	DESCRIPTION		MANUFACTURER
	Q...300	50.03.0436	BC 237	NPN	
	Q...301	50.03.0515	BC 307	PNP	
	Q...310	50.03.0436	BC 237	NPN	
	Q...311	50.03.0515	BC 307	PNP	
	Q...320	50.03.0436	BC 237	NPN	
	Q...321	50.03.0515	BC 307	PNP	
	Q...330	50.03.0436	BC 237	NPN	
	Q...331	50.03.0515	BC 307	PNP	
	Q...340	50.03.0436	BC 237	NPN	
	Q...341	50.03.0515	BC 307	PNP	
	Q...350	50.03.0436	BC 237	NPN	
	Q...351	50.03.0515	BC 307	PNP	
	Q...360	50.03.0436	BC 237	NPN	
	Q...361	50.03.0515	BC 307	PNP	
	R.....1	57.11.5106	10 MOhm	10%, 0.25W, MF	
	R.....2	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R.....3	57.11.5106	10 MOhm	10%, 0.25W, MF	
	R.....4	57.11.5106	10 MOhm	10%, 0.25W, MF	
	R.....5	57.11.5106	10 MOhm	10%, 0.25W, MF	
	R.....6	57.11.3224	220 KOhm	1%, 0.25W, MF	
	R.....7	57.11.3473	47 KOhm	1%, 0.25W, MF	
	R.....8	57.11.5106	10 MOhm	10%, 0.25W, MF	
	R.....9	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....10	57.11.5106	10 MOhm	10%, 0.25W, MF	
	R....11	57.11.5106	10 MOhm	10%, 0.25W, MF	
	R....12	57.11.5106	10 MOhm	10%, 0.25W, MF	
	R....13	57.11.3224	220 KOhm	1%, 0.25W, MF	
	R....14	57.11.3473	47 KOhm	1%, 0.25W, MF	
	R....15	57.11.5106	10 MOhm	10%, 0.25W, MF	
	R....16	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....17	57.11.5106	10 MOhm	10%, 0.25W, MF	
	R....18	57.11.5106	10 MOhm	10%, 0.25W, MF	
	R....19	57.11.5106	10 MOhm	10%, 0.25W, MF	
	R....20	57.11.3224	220 KOhm	1%, 0.25W, MF	
	R....21	57.11.3473	47 KOhm	1%, 0.25W, MF	
	R....22	57.11.5106	10 MOhm	10%, 0.25W, MF	
	R....23	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....24	57.11.5106	10 MOhm	10%, 0.25W, MF	
	R....25	57.11.5106	10 MOhm	10%, 0.25W, MF	
	R....26	57.11.5106	10 MOhm	10%, 0.25W, MF	
	R....27	57.11.3224	220 KOhm	1%, 0.25W, MF	
	R....28	57.11.3473	47 KOhm	1%, 0.25W, MF	
	R....29	57.11.5106	10 MOhm	10%, 0.25W, MF	
	R....30	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....31	57.11.5106	10 MOhm	10%, 0.25W, MF	
	R....32	57.11.5106	10 MOhm	10%, 0.25W, MF	
	R....33	57.11.5106	10 MOhm	10%, 0.25W, MF	
	R....34	57.11.3224	220 KOhm	1%, 0.25W, MF	
	R....35	57.11.3473	47 KOhm	1%, 0.25W, MF	
	R....36	57.11.5106	10 MOhm	10%, 0.25W, MF	
	R....37	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....38	57.11.5106	10 MOhm	10%, 0.25W, MF	
	R....39	57.11.5106	10 MOhm	10%, 0.25W, MF	
	R....40	57.11.5106	10 MOhm	10%, 0.25W, MF	
	R....41	57.11.3224	220 KOhm	1%, 0.25W, MF	
	R....42	57.11.3473	47 KOhm	1%, 0.25W, MF	
	R....43	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....44	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....45	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....46	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....47	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....48	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....49	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....50	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....51	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....52	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....53	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....54	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....55	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....56	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....57	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....58	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....59	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....60	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....61	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....62	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....63	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....64	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....65	57.11.3103	10 KOhm	1%, 0.25W, MF	
	R....66	57.11.3104	100 KOhm	1%, 0.25W, MF	
	R....67	57.11.3272	2.7 KOhm	1%, 0.25W, MF	
	R....68	57.11.3392	3.9 KOhm	1%, 0.25W, MF	
	R....69	57.11.3392	3.9 KOhm	1%, 0.25W, MF	
	R....70	57.11.3272	2.7 KOhm	1%, 0.25W, MF	
	R....71	57.11.3272	2.7 KOhm	1%, 0.25W, MF	
	R....72	57.11.3392	3.9 KOhm	1%, 0.25W, MF	
	R....73	57.11.3392	3.9 KOhm	1%, 0.25W, MF	
	R....74	57.11.3272	2.7 KOhm	1%, 0.25W, MF	
	R....75	57.11.3272	2.7 KOhm	1%, 0.25W, MF	
	R....76	57.11.3392	3.9 KOhm	1%, 0.25W, MF	
	R....77	57.11.3392	3.9 KOhm	1%, 0.25W, MF	

INPUT OUTPUT UNIT 1.775.460.00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	R....78	57.11.3272	2.7 KOhm 1%, 0.25W, MF	
	R....79	57.11.3272	2.7 KOhm 1%, 0.25W, MF	
	R....80	57.11.3392	3.9 KOhm 1%, 0.25W, MF	
	R....81	57.11.3392	3.9 KOhm 1%, 0.25W, MF	
	R....82	57.11.3272	2.7 KOhm 1%, 0.25W, MF	
	R....83	57.11.3152	1.5 KOhm 1%, 0.25W, MF	
	R....84	57.11.3152	1.5 KOhm 1%, 0.25W, MF	
	R....85	57.11.3152	1.5 KOhm 1%, 0.25W, MF	
	R....86	57.11.3152	1.5 KOhm 1%, 0.25W, MF	
	R....87	57.11.3152	1.5 KOhm 1%, 0.25W, MF	
	R....88	57.11.3152	1.5 KOhm 1%, 0.25W, MF	
	R....89	57.11.3152	1.5 KOhm 1%, 0.25W, MF	
	R....90	57.11.3152	1.5 KOhm 1%, 0.25W, MF	
	R....91	57.11.3333	33 KOhm 1%, 0.25W, MF	
	R....92	57.11.3333	33 KOhm 1%, 0.25W, MF	
	R....93	57.11.3333	33 KOhm 1%, 0.25W, MF	
	R....94	57.11.3333	33 KOhm 1%, 0.25W, MF	
	R....95	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R....96	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R....97	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R....98	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R....99	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...100	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...101	57.11.3272	2.7 KOhm 1%, 0.25W, MF	
	R...102	57.11.3272	2.7 KOhm 1%, 0.25W, MF	
	R...103	57.11.3272	2.7 KOhm 1%, 0.25W, MF	
	R...104	57.11.3272	2.7 KOhm 1%, 0.25W, MF	
	R...105	57.11.3101	100 Ohm 1%, 0.25W, MF	
	R...106	57.11.3101	100 Ohm 1%, 0.25W, MF	
	R...107	57.11.3101	100 Ohm 1%, 0.25W, MF	
	R...108	57.11.3101	100 Ohm 1%, 0.25W, MF	
	R...109	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...110	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...111	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...112	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...113	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...114	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...115	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...116	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...117	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...118	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...119	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...120	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...121	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...122	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...123	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...124	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...125	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...126	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...127	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...128	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...129	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...130	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...131	57.11.3689	6.8 Ohm 1%, 0.25W, MF	
	R...132	57.11.3689	6.8 Ohm 1%, 0.25W, MF	
	R...133	57.11.3153	15 KOhm 1%, 0.25W, MF	
	R...134	57.11.3471	470 Ohm 1%, 0.25W, MF	
	R...135	57.11.3332	3.3 KOhm 1%, 0.25W, MF	
	R...136	57.11.3332	3.3 KOhm 1%, 0.25W, MF	
	R...137	57.11.3153	15 KOhm 1%, 0.25W, MF	
	R...138	57.11.3471	470 Ohm 1%, 0.25W, MF	
	R...139	57.11.3392	3.9 KOhm 1%, 0.25W, MF	
	R...140	57.11.3132	1.3 KOhm 1%, 0.25W, MF	
	R...141	57.11.3132	1.3 KOhm 1%, 0.25W, MF	
	R...142	57.11.3392	3.9 KOhm 1%, 0.25W, MF	
	R...143	57.11.3392	3.9 KOhm 1%, 0.25W, MF	
	R...144	57.11.3392	3.9 KOhm 1%, 0.25W, MF	
	R...145	57.11.3132	1.3 KOhm 1%, 0.25W, MF	
	R...146	57.11.3132	1.3 KOhm 1%, 0.25W, MF	
	R...147	57.11.3392	3.9 KOhm 1%, 0.25W, MF	
	R...148	57.11.3392	3.9 KOhm 1%, 0.25W, MF	
	R...149	57.19.0330	33 Ohm 5%, 0.33W Fusible Resistor /!\	
	R...150	57.19.0330	33 Ohm 5%, 0.33W Fusible Resistor /!\	
	R...151	57.19.0330	33 Ohm 5%, 0.33W Fusible Resistor /!\	
	R...152	57.19.0330	33 Ohm 5%, 0.33W Fusible Resistor /!\	
	R...153	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R...154	57.11.3272	2.7 KOhm 1%, 0.25W, MF	
	R...155	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R...156	57.11.3272	2.7 KOhm 1%, 0.25W, MF	
	R...157	57.11.3223	22 KOhm 1%, 0.25W, MF	
	R...158	57.11.3223	22 KOhm 1%, 0.25W, MF	
	R...159	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...160	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...161	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...162	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...163	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...164	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...165	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...166	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...167	57.11.3339	3.3 Ohm 1%, 0.25W, MF	
	R...168	57.11.3339	3.3 Ohm 1%, 0.25W, MF	
	R...169	57.11.3339	3.3 Ohm 1%, 0.25W, MF	
	R...170	57.11.3339	3.3 Ohm 1%, 0.25W, MF	
	R...171	57.11.3339	3.3 Ohm 1%, 0.25W, MF	
	R...172	57.11.3339	3.3 Ohm 1%, 0.25W, MF	
	R...173	57.11.3339	3.3 Ohm 1%, 0.25W, MF	
	R...174	57.11.3339	3.3 Ohm 1%, 0.25W, MF	
	R...175	57.11.3223	22 KOhm 1%, 0.25W, MF	
	R...176	57.11.3223	22 KOhm 1%, 0.25W, MF	
	R...177	57.11.3332	3.3 KOhm 1%, 0.25W, MF	
	R...178	57.11.3332	3.3 KOhm 1%, 0.25W, MF	
	R...179	57.11.3332	3.3 KOhm 1%, 0.25W, MF	
	R...180	57.11.3332	3.3 KOhm 1%, 0.25W, MF	
	R...181	57.11.3821	820 Ohm 1%, 0.25W, MF	
	R...182	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R...183	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R...184	57.11.3821	820 Ohm 1%, 0.25W, MF	
	R...185	57.11.3104	100 KOhm 1%, 0.25W, MF	
	R...186	57.11.3472	4.7 KOhm 1%, 0.25W, MF	
	R...187	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...188	57.11.3153	15 KOhm 1%, 0.25W, MF	
	R...189	57.11.3153	15 KOhm 1%, 0.25W, MF	
	R...190	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...191	57.11.3104	100 KOhm 1%, 0.25W, MF	
	R...192	57.11.3472	4.7 KOhm 1%, 0.25W, MF	
	R...193	57.11.5106	10 MOhm 10%, 0.25W, MF	
	R...194	57.11.5106	10 MOhm 10%, 0.25W, MF	
	R...195	57.11.5106	10 MOhm 10%, 0.25W, MF	
	R...196	57.11.5106	10 MOhm 10%, 0.25W, MF	
	R...197	57.11.3104	100 KOhm 1%, 0.25W, MF	
	R...198	57.11.3473	47 KOhm 1%, 0.25W, MF	
	R...199	57.11.3224	220 KOhm 1%, 0.25W, MF	
	R...200	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...201	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...202	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...203	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...204	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...205	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...206	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...207	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...208	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...209	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...210	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...211	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...212	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...213	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...214	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...215	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...216	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...217	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...218	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...219	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...220	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...221	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...222	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...223	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...224	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...225	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...226	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...227	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...228	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...229	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...230	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...231	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...232	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...233	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...234	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...235	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...236	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...237	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...238	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...239	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...240	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...241	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...242	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...243	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...244	57.11.3689	6.8 Ohm 1%, 0.25W, MF	
	R...245	57.11.3689	6.8 Ohm 1%, 0.25W, MF	
	R...246	57.11.3689	6.8 Ohm 1%, 0.25W, MF	
	R...247	57.11.3689	6.8 Ohm 1%, 0.25W, MF	
	R...248	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...249	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...250	57.11.3472	4.7 KOhm 1%, 0.25W, MF	
	R...251	57.11.3472	4.7 KOhm 1%, 0.25W, MF	
	R...252	57.11.3472	4.7 KOhm 1%, 0.25W, MF	
	R...253	57.11.3472	4.7 KOhm 1%, 0.25W, MF	
	R...254	57.11.3472	4.7 KOhm 1%, 0.25W, MF	
	R...255	57.11.3472	4.7 KOhm 1%, 0.25W, MF	
	R...256	57.11.3472	4.7 KOhm 1%, 0.25W, MF	
	R...257	57.11.3472	4.7 KOhm 1%, 0.25W, MF	
	R...300	57.11.3153	15 KOhm 1%, 0.25W, MF	
	R...301	57.11.3154	150 KOhm 1%, 0.25W, MF	
	R...302	57.11.3331	330 Ohm 1%, 0.25W, MF	
	R...303	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...304	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...310	57.11.3153	15 KOhm 1%, 0.25W, MF	
	R...311	57.11.3154	150 KOhm 1%, 0.25W, MF	
	R...312	57.11.3331	330 Ohm 1%, 0.25W, MF	
	R...313	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...314	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...320	57.11.3153	15 KOhm 1%, 0.25W, MF	

INPUT OUTPUT UNIT 1.775.460.00

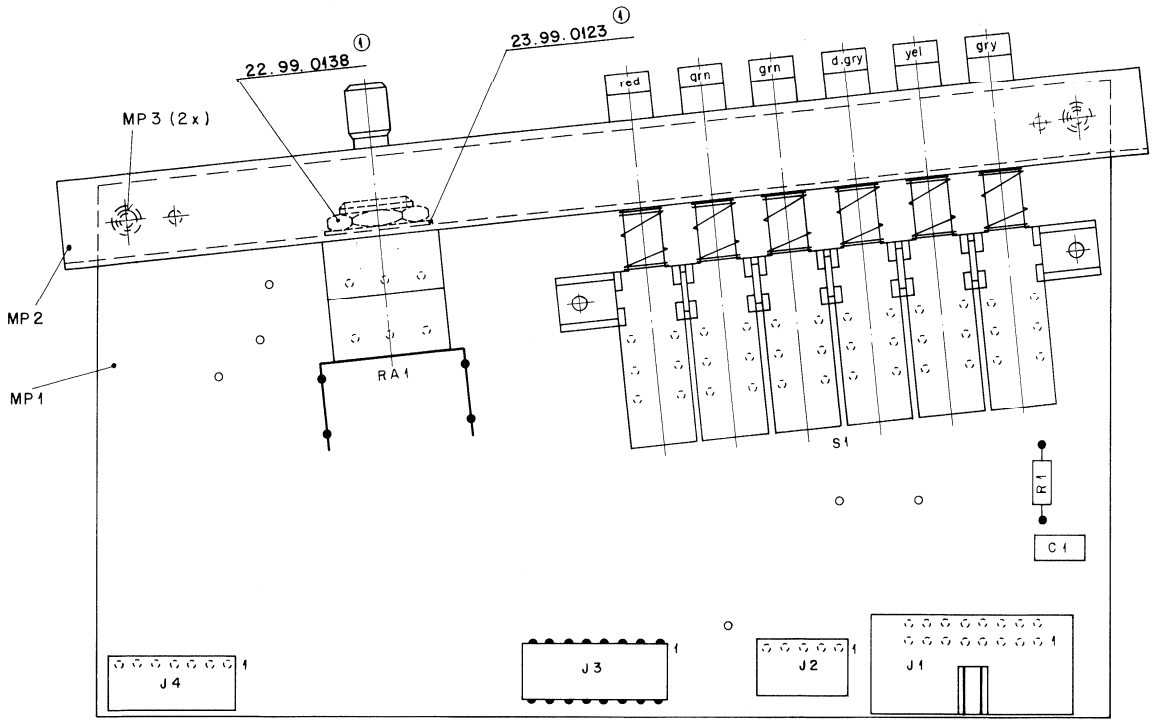
Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	R...321	57.11.3154	150 KOhm 1%, 0.25W, MF	
	R...322	57.11.3331	330 Ohm 1%, 0.25W, MF	
	R...323	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...324	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...330	57.11.3153	15 KOhm 1%, 0.25W, MF	
	R...331	57.11.3154	150 KOhm 1%, 0.25W, MF	
	R...332	57.11.3331	330 Ohm 1%, 0.25W, MF	
	R...333	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...334	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...340	57.11.3153	15 KOhm 1%, 0.25W, MF	
	R...341	57.11.3154	150 KOhm 1%, 0.25W, MF	
	R...342	57.11.3331	330 Ohm 1%, 0.25W, MF	
	R...343	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...344	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...350	57.11.3153	15 KOhm 1%, 0.25W, MF	
	R...351	57.11.3154	150 KOhm 1%, 0.25W, MF	
	R...352	57.11.3331	330 Ohm 1%, 0.25W, MF	
	R...353	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...354	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...360	57.11.3153	15 KOhm 1%, 0.25W, MF	
	R...361	57.11.3154	150 KOhm 1%, 0.25W, MF	
	R...362	57.11.3331	330 Ohm 1%, 0.25W, MF	
	R...363	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...364	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...400	57.92.1121	22 Ohm PTC 56V	
	R...401	57.92.1121	22 Ohm PTC 56V	
	R...402	57.92.1121	22 Ohm PTC 56V	
	R...403	57.92.1121	22 Ohm PTC 56V	
	S...300	55.12.1106	6x on/off Switch	
	T.....1	1.022.451.00	Input-Transformer 1:0,62	ST
	T.....2	1.022.451.00	Input-Transformer 1:0,62	ST
	T.....3	1.022.362.00	Output-Transformer 1:1,45	ST
	T.....4	1.022.362.00	Output-Transformer 1:1,45	ST
	W.....1	1.775.460.93	Wire List	

MF=Metal-film, El=Electrolytic, Cer=Ceramic, PETP=Polyester, PP=Polypropylen

MANUFACTURER: Mot=Motorola, Ra=Raytheon, ST=Studer

1.775.460.00	INPUT-OUTPUT UNIT	UL89/02/0900
1.775.460.00	INPUT-OUTPUT UNIT	UL89/09/2101
1.775.460.00	INPUT-OUTPUT UNIT	UL90/05/3002

C.R. MONITOR UNIT 1.775.470.00



Änderung					
					3
					2
	8.1.91				1
Ausgabe	13.6.89				0
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

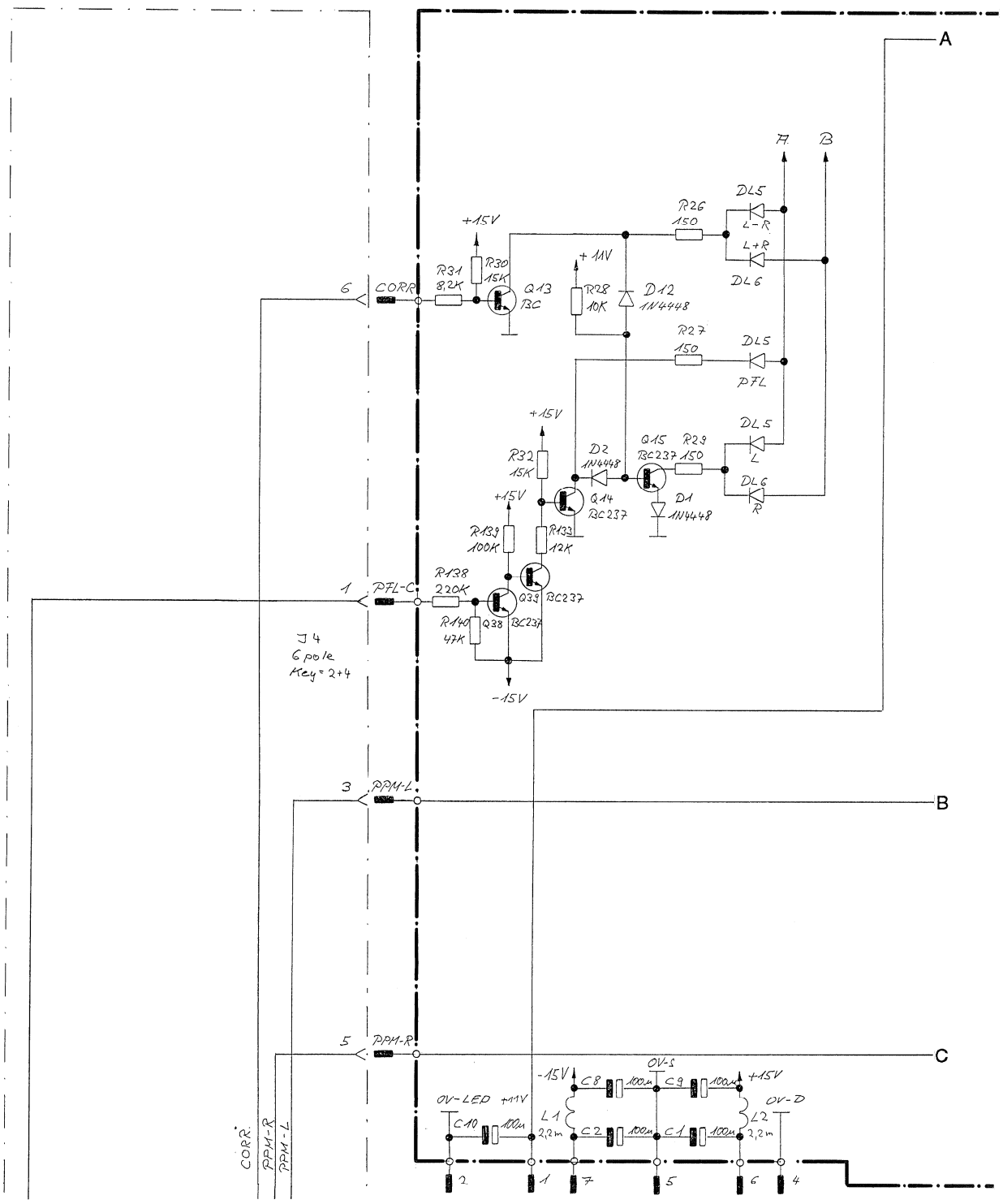
STUDER REGENSDORF ZÜRICH	Benennung: CR-MONITOR UNIT	Nummer: 1.775.470-00

Ad	..POS..	...REF.No...	DESCRIPTION.....	.....MANUFACTURER
	C.....1	59.06.0474	470 nF	10%, 50V, EL
	J.....1	54.14.2072	16-Pole	PCB Connector for Flat-Cable
	J.....2	54.01.0246	5-Pole	CIS
	J.....3	54.01.0306	8-Pole	CIS
	J.....4	54.01.0263	7-Pole	CIS
	MP....1	1.775.470.11		CR MONITOR
	MP....2	1.775.470.01		U-Profile
	MP....3	21.38.1352	2 pcs	Screw
	MP....4	1.775.470.02		Nr.Label
	R.....1	57.11.3223	22 KOhm	1%, 0.25W, MF
	RA....1	1.775.350.01	2x10KOhm	pos.log
	S.....1	55.15.0031	6x2u	Push Button

MF=Metal-film, El=Electrolytic

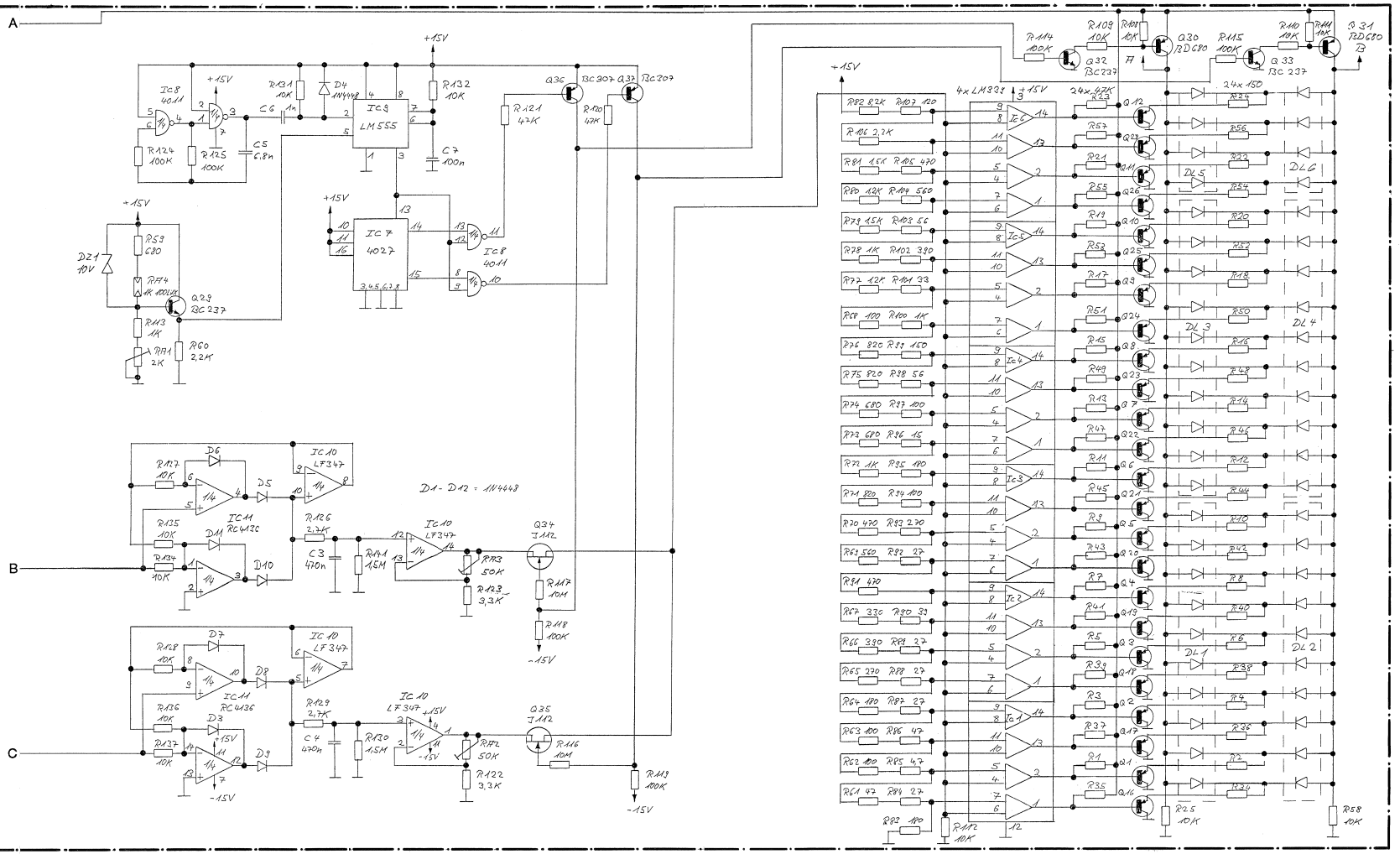
1.775.470.00 CR-MONITOR UNIT UL89/02/0900

DISPLAY UNIT 1.775.310.00



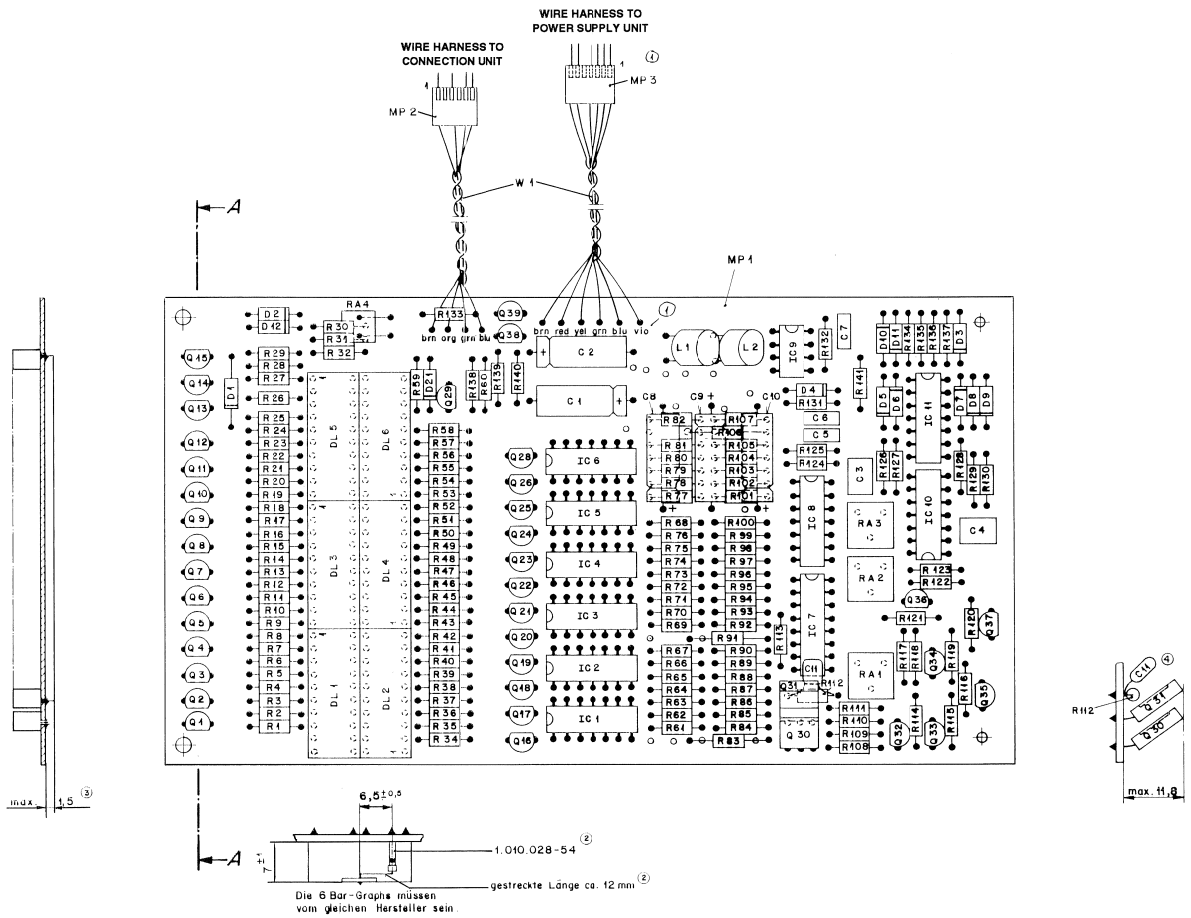
Part of CONNECTION UNIT 1.775.410.00	WIRE HARNESS TO CONNECTION UNIT	WIRE HARNESS TO POWER SUPPLY UNIT

DISPLAY UNIT 1.775.310.00



0 30.1.98 Ulenger	12.5.93 Ulenger	. .	. .	. .
	MIXING CONSOLE M 779			PAGE 3 OF 3
STUDER	CONNECTION UNIT	SC	1.775.410.00	

DISPLAY UNIT 1.775.310.00



Ad	..POS..	...REF.No...	DESCRIPTION		MANUFACTURER
	C.....1	59.25.4101	100 uF	-20%, 25V, EL	
	C.....2	59.25.4101	100 uF	-20%, 25V, EL	
	C.....3	59.06.0474	0.47uF	10%, 25V, PETP	
	C.....4	59.06.0474	0.47uF	10%, 25V, PETP	
	C.....5	59.06.0682	6.8 nF	10%, 25V, PETP	
	C.....6	59.06.0102	1 nF	10%, 25V, PETP	
	C.....7	59.06.0104	100 nF	10%, 25V, PETP	
	C.....8	59.25.4101	100 uF	-20%, 25V, EL	
	C.....9	59.25.4101	100 uF	-20%, 25V, EL	
	C....10	59.25.4101	100 uF	-20%, 25V, EL	
04	C....11	59.32.4102	1 nF	20%, 25V, CER	
	D.....1	50.04.0125	1N 4448	any	
	D.....2	50.04.0125	1N 4448	any	
	D.....3	50.04.0125	1N 4448	any	
	D.....4	50.04.0125	1N 4448	any	
	D.....5	50.04.0125	1N 4448	any	
	D.....6	50.04.0125	1N 4448	any	
	D.....7	50.04.0125	1N 4448	any	
	D.....8	50.04.0125	1N 4448	any	
	D.....9	50.04.0125	1N 4448	any	
	D....10	50.04.0125	1N 4448	any	
	D....11	50.04.0125	1N 4448	any	
	D....12	50.04.0125	1N 4448	any	
	DL....1	50.04.2161	gn/dif	BAR-GRAPH	
	DL....2	50.04.2161	gn/dif	BAR-GRAPH	
	DL....3	50.04.2161	gn/dif	BAR-GRAPH	
	DL....4	50.04.2161	gn/dif	BAR-GRAPH	
	DL....5	50.04.2150	rt/dif	BAR-GRAPH	
	DL....6	50.04.2150	rt/dif	BAR-GRAPH	
	DZ....1	50.04.1117	12V Z		
02	DZ....1	50.04.1114	10V Z		
	IC....1	50.11.0104	LM339		NS
	IC....2	50.11.0104	LM339		NS
	IC....3	50.11.0104	LM339		NS
	IC....4	50.11.0104	LM339		NS
	IC....5	50.11.0104	LM339		NS
	IC....6	50.11.0104	LM339		NS
	IC....7	50.07.0027	4027		
	IC....8	50.07.1011	4011		
	IC....9	50.05.0158	LM555		NS
	IC...10	50.09.0104	LF347N		NS
	IC...11	50.05.0232	RC4136		TI
	L.....1	62.02.1222	2.2mH		
01	L.....1	62.02.3222	2.2mH		
	L.....2	62.02.1222	2.2mH		
01	L.....2	62.02.3222	2.2mH		
	MP....1	1.775.310.11		DISPLAY PCB	
	MP....2	54.01.0230	6-Pole	CIS	
	MP....3	54.01.0233	7-Pole	CIS	Mot
03	MP....4	1.010.028.54		Connect Pin	
03	MP....5	1.010.028.54		Connect Pin	
	Q.....1	50.03.0515	BC 307	PNP	Mot
	Q.....2	50.03.0515	BC 307	PNP	Mot
	Q.....3	50.03.0515	BC 307	PNP	Mot
	Q.....4	50.03.0515	BC 307	PNP	Mot
	Q.....5	50.03.0515	BC 307	PNP	Mot
	Q.....6	50.03.0515	BC 307	PNP	Mot
	Q.....7	50.03.0515	BC 307	PNP	Mot
	Q.....8	50.03.0515	BC 307	PNP	Mot
	Q.....9	50.03.0515	BC 307	PNP	Mot
	Q....10	50.03.0515	BC 307	PNP	Mot
	Q....11	50.03.0515	BC 307	PNP	Mot
	Q....12	50.03.0515	BC 307	PNP	Mot
	Q....13	50.03.0436	BC 237	NPN	Mot
	Q....14	50.03.0436	BC 237	NPN	Mot
	Q....15	50.03.0436	BC 237	NPN	Mot
	Q....16	50.03.0515	BC 307	PNP	Mot
	Q....17	50.03.0515	BC 307	PNP	Mot
	Q....18	50.03.0515	BC 307	PNP	Mot
	Q....19	50.03.0515	BC 307	PNP	Mot
	Q....20	50.03.0515	BC 307	PNP	Mot
	Q....21	50.03.0515	BC 307	PNP	Mot
	Q....22	50.03.0515	BC 307	PNP	Mot
	Q....23	50.03.0515	BC 307	PNP	Mot
	Q....24	50.03.0515	BC 307	PNP	Mot
	Q....25	50.03.0515	BC 307	PNP	Mot
	Q....26	50.03.0515	BC 307	PNP	Mot
	Q....28	50.03.0515	BC 307	PNP	Mot
	Q....29	50.03.0436	BC 237	NPN	Mot
	Q....30	50.03.0505	BD 680	PNP	Mot
	Q....31	50.03.0505	BD 680	PNP	Mot
	Q....32	50.03.0436	BC 237	NPN	Mot
	Q....33	50.03.0436	BC 237	NPN	Mot
	Q....34	50.03.0350	J 112	FET	Mot
	Q....35	50.03.0350	J 112	FET	Mot
	Q....36	50.03.0515	BC 307	PNP	Mot
	Q....37	50.03.0515	BC 307	PNP	Mot
	Q....38	50.03.0436	BC 237	NPN	Mot
	Q....39	50.03.0436	BC 237	NPN	Mot
	R.....1	57.11.4473	47 KOhm	2%, 0.25W, MF	
	R.....2	57.11.4151	150 Ohm	2%, 0.25W, MF	
	R.....3	57.11.4473	47 KOhm	2%, 0.25W, MF	

Ausgabe	Datum	Gez.	Gepr.	Gen.	Index
A	4.8.86	Ho			0
Änderung	21.8.86				1
	18.1.88				2
	27.10.89				3
	5.6.90				4

Kopie Nr.

STUDER REGENSDORF ZÜRICH

Benennung: DISPLAY UNIT ESE

Nummer: 1.775.310-00

DISPLAY UNIT 1.775.310.00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	R.....4	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R.....5	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R.....6	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R.....7	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R.....8	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R.....9	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....10	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....11	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....12	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....13	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....14	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....15	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....16	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....17	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....18	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....19	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....20	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....21	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....22	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....23	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....24	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....25	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R....26	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....27	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....28	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R....29	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....30	57.11.4153	15 KOhm 2%, 0.25W, MF	
	R....31	57.11.4822	8.2 KOhm 2%, 0.25W, MF	
	R....32	57.11.4153	15 KOhm 2%, 0.25W, MF	
	R....34	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....35	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....36	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....37	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....38	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....39	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....40	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....41	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....42	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....43	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....44	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....45	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....46	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....47	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....48	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....49	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....50	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....51	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....52	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....53	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....54	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....55	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....56	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....57	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....58	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R....59	57.11.4681	680 Ohm 2%, 0.25W, MF	
	R....60	57.11.4222	2.2 KOhm 2%, 0.25W, MF	
	R....61	57.11.4470	47 Ohm 2%, 0.25W, MF	
	R....62	57.11.4101	100 Ohm 2%, 0.25W, MF	
	R....63	57.11.4101	100 Ohm 2%, 0.25W, MF	
	R....64	57.11.4181	180 Ohm 2%, 0.25W, MF	
	R....65	57.11.4271	270 Ohm 2%, 0.25W, MF	
	R....66	57.11.4391	390 Ohm 2%, 0.25W, MF	
	R....67	57.11.4331	330 Ohm 2%, 0.25W, MF	
	R....68	57.11.4101	100 Ohm 2%, 0.25W, MF	
	R....69	57.11.4561	560 Ohm 2%, 0.25W, MF	
	R....70	57.11.4471	470 Ohm 2%, 0.25W, MF	
	R....71	57.11.4821	820 Ohm 2%, 0.25W, MF	
	R....72	57.11.4102	1 kOhm 2%, 0.25W, MF	
	R....73	57.11.4681	680 Ohm 2%, 0.25W, MF	
	R....74	57.11.4681	680 Ohm 2%, 0.25W, MF	
	R....75	57.11.4821	820 Ohm 2%, 0.25W, MF	
	R....76	57.11.4821	820 Ohm 2%, 0.25W, MF	
	R....77	57.11.4122	1.2 KOhm 2%, 0.25W, MF	
	R....78	57.11.4102	1 KOhm 2%, 0.25W, MF	
	R....79	57.11.4152	1.5 KOhm 2%, 0.25W, MF	
	R....80	57.11.4122	1.2 KOhm 2%, 0.25W, MF	
	R....81	57.11.4152	1.5 KOhm 2%, 0.25W, MF	
	R....82	57.11.4822	8.2 KOhm 2%, 0.25W, MF	
	R....83	57.11.4181	180 Ohm 2%, 0.25W, MF	
	R....84	57.11.4270	27 Ohm 2%, 0.25W, MF	
	R....85	57.11.4479	4.7 Ohm 2%, 0.25W, MF	
	R....86	57.11.4470	47 Ohm 2%, 0.25W, MF	
	R....87	57.11.4270	27 Ohm 2%, 0.25W, MF	
	R....88	57.11.4270	27 Ohm 2%, 0.25W, MF	
	R....89	57.11.4270	27 Ohm 2%, 0.25W, MF	
	R....90	57.11.4390	39 Ohm 2%, 0.25W, MF	
	R....91	57.11.4471	470 Ohm 2%, 0.25W, MF	
	R....92	57.11.4270	27 Ohm 2%, 0.25W, MF	
	R....93	57.11.4271	270 Ohm 2%, 0.25W, MF	
	R....94	57.11.4101	100 Ohm 2%, 0.25W, MF	
	R....95	57.11.4181	180 Ohm 2%, 0.25W, MF	
	R....96	57.11.4150	15 Ohm 2%, 0.25W, MF	
	R....97	57.11.4101	100 Ohm 2%, 0.25W, MF	
	R....98	57.11.4560	56 Ohm 2%, 0.25W, MF	
	R....99	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R...100	57.11.4102	1 KOhm 2%, 0.25W, MF	
	R...101	57.11.4330	33 Ohm 2%, 0.25W, MF	
	R...102	57.11.4391	390 Ohm 2%, 0.25W, MF	
	R...103	57.11.4560	56 Ohm 2%, 0.25W, MF	
	R...104	57.11.4561	560 Ohm 2%, 0.25W, MF	
	R...105	57.11.4471	470 Ohm 2%, 0.25W, MF	
	R...106	57.11.4222	2.2 KOhm 2%, 0.25W, MF	
	R...107	57.11.4121	120 Ohm 2%, 0.25W, MF	
	R...108	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...109	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...110	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...111	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...112	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...113	57.11.4102	1 KOhm 2%, 0.25W, MF	
	R...114	57.11.4104	100 KOhm 2%, 0.25W, MF	
	R...115	57.11.4104	100 KOhm 2%, 0.25W, MF	
	R...116	57.11.5106	10 MOhm 2%, 0.25W, MF	
	R...117	57.11.5106	10 MOhm 2%, 0.25W, MF	
	R...118	57.11.4104	100 KOhm 2%, 0.25W, MF	
	R...119	57.11.4104	100 KOhm 2%, 0.25W, MF	
	R...120	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R...121	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R...122	57.11.4332	3.3 KOhm 2%, 0.25W, MF	
	R...123	57.11.4332	3.3 KOhm 2%, 0.25W, MF	
	R...124	57.11.4104	100 KOhm 2%, 0.25W, MF	
	R...125	57.11.4104	100 KOhm 2%, 0.25W, MF	
	R...126	57.11.4272	2.7 KOhm 2%, 0.25W, MF	
	R...127	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...128	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...129	57.11.4272	2.7 KOhm 2%, 0.25W, MF	
	R...130	57.11.5155	1.5 MOhm 5%, 0.25W, MF	
	R...131	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...132	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...133	57.11.4123	12 KOhm 2%, 0.25W, MF	
	R...134	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...135	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...136	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...137	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...138	57.11.4224	220 KOhm 2%, 0.25W, MF	
	R...139	57.11.4104	100 KOhm 2%, 0.25W, MF	
	R...140	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R...141	57.11.5155	1.5 MOhm 5%, 0.25W, MF	
	RA....1	58.01.8202	2 KOhm -10%, 0.50W, C	
	RA....2	58.01.8503	50 KOhm -10%, 0.50W, C	
	RA....3	58.01.8503	50 KOhm -10%, 0.50W, C	
	RA....4	57.99.0135	1 KOhm 100Lux LDR	
	W.....1	1.775.310.93	Wire List	

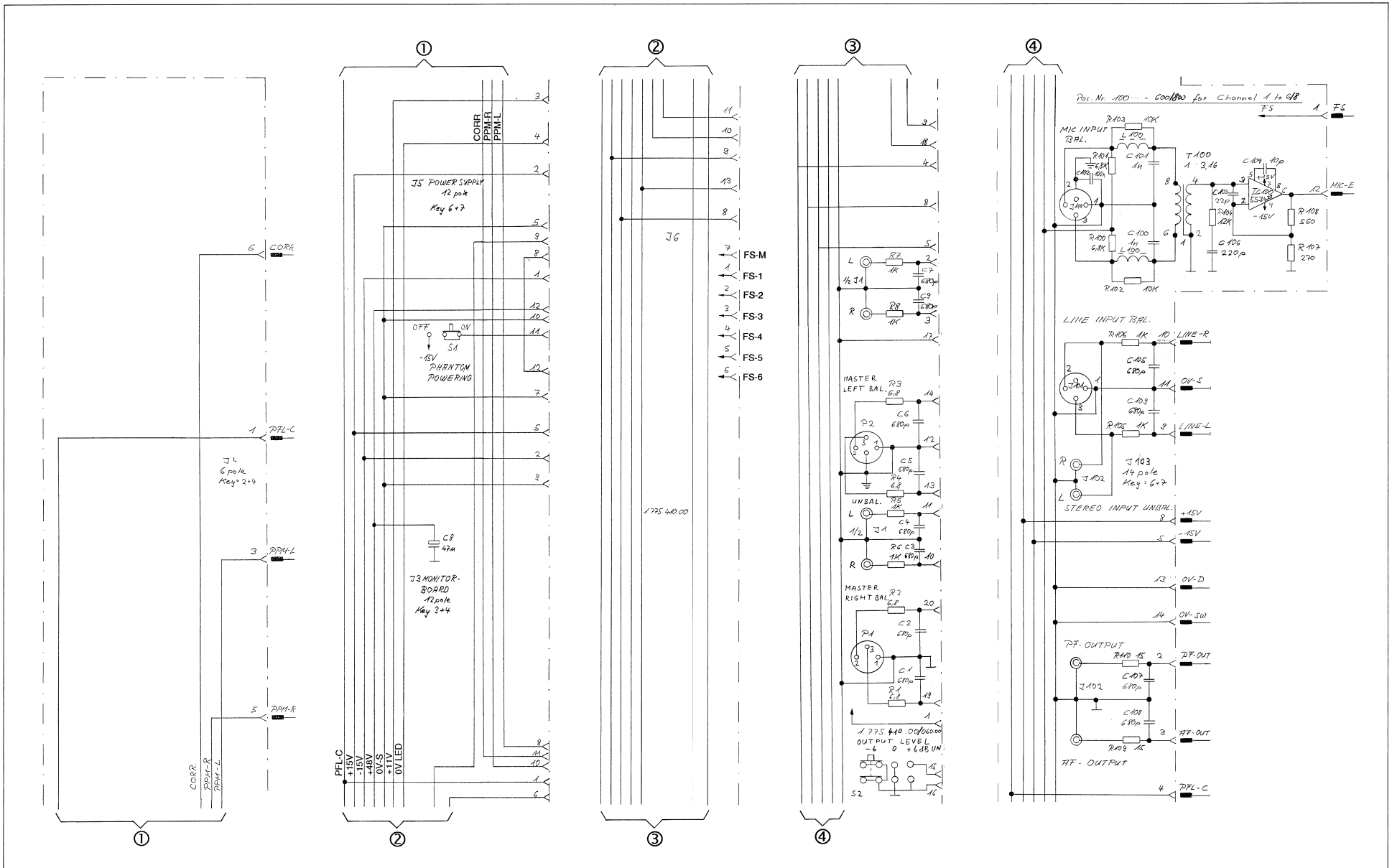
EL=Electrolytic, C=Ceramic, PETP=Polyester

MF=Metal Film

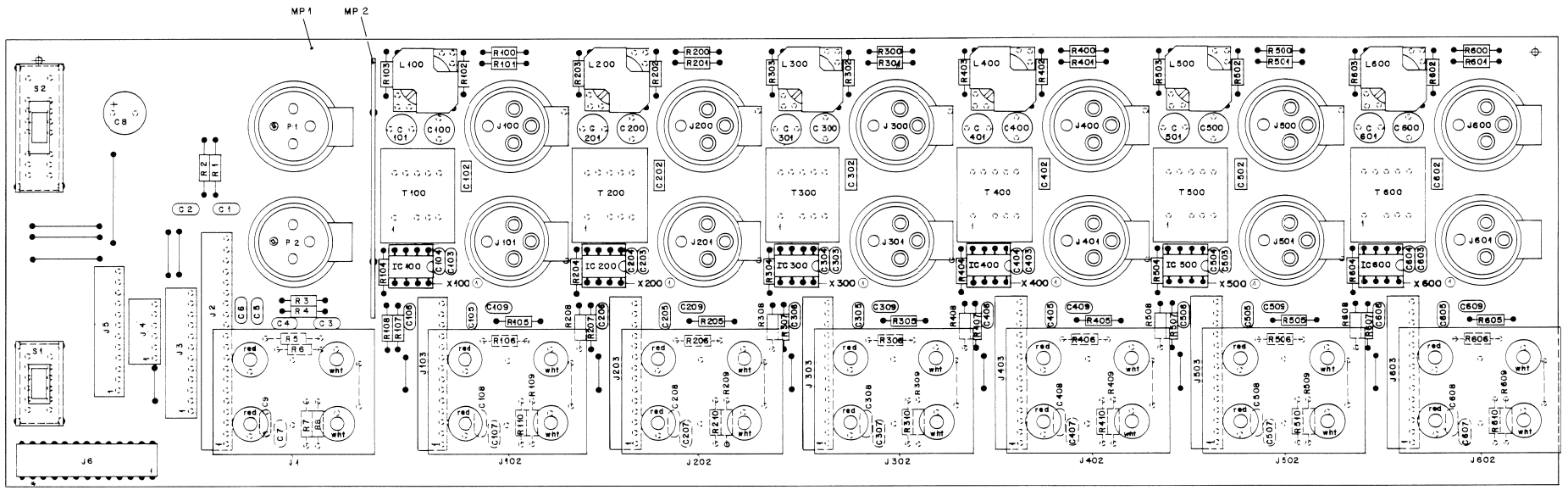
MANUFACTURER: Mot=Motorola,NS=National Semiconductor
TI=Texas Instruments

1.775.310.00	DISPLAY UNIT	"ESE"	UL 86/02/0500
1.775.310.00	DISPLAY UNIT	"ESE"	UL 86/10/1001
1.775.310.00	DISPLAY UNIT	"ESE"	UL 86/11/1802
1.775.310.00	DISPLAY UNIT	"ESE"	UL 86/11/2703
1.775.310.00	DISPLAY UNIT	"ESE"	SP 90/06/0504

CONNECTION UNIT 1.775.410.00



CONNECTION UNIT 1.775.410.00



* Codierung : Schaltdraht 64.01.0108 ⌀0,8 * 8mm
(muss 1mm vorstehen)

Änderung					(3)
	27.10.94				(2)
Ausgabe	28.4.89	A. Mo			(1)
	Datum	Gez.	Impr.	Gen.	Index

Kopie für:

STUDER REGENSDORF ZURICH

Benennung: CONNECTION UNIT ESE

Nummer: 1.775.410 -00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	C.....1	59.32.2681	680 pF 10%, 25V, C	
	C.....2	59.32.2681	680 pF 10%, 25V, C	
	C.....3	59.32.2681	680 pF 10%, 25V, C	
	C.....4	59.32.2681	680 pF 10%, 25V, C	
	C.....5	59.32.2681	680 pF 10%, 25V, C	
	C.....6	59.32.2681	680 pF 10%, 25V, C	
	C.....7	59.32.2681	680 pF 10%, 25V, C	
	C.....8	59.22.8470	47 uF -20%,63V, EL	
	C.....9	59.32.2681	680 pF 10%, 25V, C	
	C...100	59.05.1102	1 nF 1%, 25V, PP	
	C...101	59.05.1102	1 nF 1%, 25V, PP	
	C...102	59.06.0104	100 nF 10%, 25V, PETP	
	C...103	59.34.2220	22 pF 10%, 25V, C	
	C...104	59.34.1100	10 pF 10%, 25V, C	
	C...105	59.32.2681	680 pF 10%, 25V, C	
	C...106	59.34.4221	220 pF 10%, 25V, C	
	C...107	59.32.2681	680 pF 10%, 25V, C	
	C...108	59.32.2681	680 pF 10%, 25V, C	
	C...109	59.32.2681	680 pF 10%, 25V, C	
	C...200	59.05.1102	1 nF 1%, 25V, PP	
	C...201	59.05.1102	1 nF 1%, 25V, PP	
	C...202	59.06.0104	100 nF 10%, 25V, PETP	
	C...203	59.34.2220	22 pF 10%, 25V, C	
	C...204	59.34.1100	10 pF 10%, 25V, C	
	C...205	59.32.2681	680 pF 10%, 25V, C	
	C...206	59.34.4221	220 pF 10%, 25V, C	
	C...207	59.32.2681	680 pF 10%, 25V, C	
	C...208	59.32.2681	680 pF 10%, 25V, C	
	C...209	59.32.2681	680 pF 10%, 25V, C	
	C...300	59.05.1102	1 nF 1%, 25V, PP	
	C...301	59.05.1102	1 nF 1%, 25V, PP	
	C...302	59.06.0104	100 nF 10%, 25V, PETP	
	C...303	59.34.2220	22 pF 10%, 25V, C	
	C...304	59.34.1100	10 pF 10%, 25V, C	
	C...305	59.32.2681	680 pF 10%, 25V, C	
	C...306	59.34.4221	220 pF 10%, 25V, C	
	C...307	59.32.2681	680 pF 10%, 25V, C	
	C...308	59.32.2681	680 pF 10%, 25V, C	
	C...309	59.32.2681	680 pF 10%, 25V, C	
	C...400	59.05.1102	1 nF 1%, 25V, PP	
	C...401	59.05.1102	1 nF 1%, 25V, PP	
	C...402	59.06.0104	100 nF 10%, 25V, PETP	
	C...403	59.34.2220	22 pF 10%, 25V, C	
	C...404	59.34.1100	10 pF 10%, 25V, C	
	C...405	59.32.2681	680 pF 10%, 25V, C	
	C...406	59.34.4221	220 pF 10%, 25V, C	
	C...407	59.32.2681	680 pF 10%, 25V, C	
	C...408	59.32.2681	680 pF 10%, 25V, C	
	C...409	59.32.2681	680 pF 10%, 25V, C	
	C...500	59.05.1102	1 nF 1%, 25V, PP	
	C...501	59.05.1102	1 nF 1%, 25V, PP	
	C...502	59.06.0104	100 nF 10%, 25V, PETP	
	C...503	59.34.2220	22 pF 10%, 25V, C	
	C...504	59.34.1100	10 pF 10%, 25V, C	
	C...505	59.32.2681	680 pF 10%, 25V, C	
	C...506	59.34.4221	220 pF 10%, 25V, C	
	C...507	59.32.2681	680 pF 10%, 25V, C	
	C...508	59.32.2681	680 pF 10%, 25V, C	
	C...509	59.32.2681	680 pF 10%, 25V, C	
	C...600	59.05.1102	1 nF 1%, 25V, PP	

CONNECTION UNIT 1.775.410.00

Ad	..POS..	...REF.No...	DESCRIPTION			MANUFACTURER
	C...601	59.05.1102	1 nF	1%, 25V,	PP	
	C...602	59.06.0104	100 nF	10%, 25V,	PETP	
	C...603	59.34.2220	22 pF	10%, 25V,	C	
	C...604	59.34.1100	10 pF	10%, 25V,	C	
	C...605	59.32.2681	680 pF	10%, 25V,	C	
	C...606	59.34.4221	220 pF	10%, 25V,	C	
	C...607	59.32.2681	680 pF	10%, 25V,	C	
	C...608	59.32.2681	680 pF	10%, 25V,	C	
	C...609	59.32.2681	680 pF	10%, 25V,	C	
	IC..100	50.05.0244	NE5534A			Sig
	IC..200	50.05.0244	NE5534A			Sig
	IC..300	50.05.0244	NE5534A			Sig
	IC..400	50.05.0244	NE5534A			Sig
	IC..500	50.05.0244	NE5534A			Sig
	IC..600	50.05.0244	NE5534A			Sig
	J.....1	54.21.1020	4-Pole	Pin Jacks		
	J.....2	54.01.0237	20-Pole	CIS		
	J.....3	54.01.0236	12-Pole	CIS		
	J.....4	54.01.0238	6-Pole	CIS		
	J.....5	54.01.0236	12-Pole	CIS		
	J.....6	54.01.0309	13-Pole	CIS		
	J...100	54.21.2002		XLR		
	J...101	54.21.2002		XLR		
	J...102	54.21.1020	4-Pole	Pin Jacks		
	J...103	54.01.0300	14-Pole	CIS		
	J...200	54.21.2002		XLR		
	J...201	54.21.2002		XLR		
	J...202	54.21.1020	4-Pole	Pin Jacks		
	J...203	54.01.0300	14-Pole	CIS		
	J...300	54.21.2002		XLR		
	J...301	54.21.2002		XLR		
	J...302	54.21.1020	4-Pole	Pin Jacks		
	J...303	54.01.0300	14-Pole	CIS		
	J...400	54.21.2002		XLR		
	J...401	54.21.2002		XLR		
	J...402	54.21.1020	4-Pole	Pin Jacks		
	J...403	54.01.0300	14-Pole	CIS		
	J...500	54.21.2002		XLR		
	J...501	54.21.2002		XLR		
	J...502	54.21.1020	4-Pole	Pin Jacks		
	J...503	54.01.0300	14-Pole	CIS		
	J...600	54.21.2002		XLR		
	J...601	54.21.2002		XLR		
	J...602	54.21.1020	4-Pole	Pin Jacks		
	J...603	54.01.0300	14-Pole	CIS		
	L...100	1.022.207.00				ST
	L...200	1.022.207.00				ST
	L...300	1.022.207.00				ST
	L...400	1.022.207.00				ST
	L...500	1.022.207.00				ST
	L...600	1.022.207.00				ST
	MP....1	1.775.320.11		Connection PCB		
	MP....2	1.775.320.01		Screening		
	MP....3	1.775.410.01		Nr. Label		
	MP....4	43.01.0108		ESE Label		
	P.....1	54.21.2001		XLR		
	P.....2	54.21.2001		XLR		
	R.....1	57.11.3689	6.8 Ohm	1%, 0.25W, MF		
	R.....2	57.11.3689	6.8 Ohm	1%, 0.25W, MF		
	R.....3	57.11.3689	6.8 Ohm	1%, 0.25W, MF		
	R.....4	57.11.3689	6.8 Ohm	1%, 0.25W, MF		
	R.....5	57.11.3102	1 KOhm	1%, 0.25W, MF		
	R.....6	57.11.3102	1 KOhm	1%, 0.25W, MF		
	R.....7	57.11.3102	1 KOhm	1%, 0.25W, MF		
	R.....8	57.11.3102	1 KOhm	1%, 0.25W, MF		
	R...100	57.99.0250	6.8 KOhm	0.1%, 0.25W, MF		
	R...101	57.99.0250	6.8 KOhm	0.1%, 0.25W, MF		
	R...102	57.11.3103	10 KOhm	1%, 0.25W, MF		
	R...103	57.11.3103	10 KOhm	1%, 0.25W, MF		
	R...104	57.11.3123	12 KOhm	1%, 0.25W, MF		
	R...105	57.11.3102	1 KOhm	1%, 0.25W, MF		
	R...106	57.11.3102	1 KOhm	1%, 0.25W, MF		
	R...107	57.11.3271	270 Ohm	1%, 0.25W, MF		
	R...108	57.11.3561	560 Ohm	1%, 0.25W, MF		
	R...109	57.11.3150	15 Ohm	1%, 0.25W, MF		
	R...110	57.11.3150	15 Ohm	1%, 0.25W, MF		
	R...200	57.99.0250	6.8 KOhm	0.1%, 0.25W, MF		
	R...201	57.99.0250	6.8 KOhm	0.1%, 0.25W, MF		
	R...202	57.11.3103	10 KOhm	1%, 0.25W, MF		
	R...203	57.11.3103	10 KOhm	1%, 0.25W, MF		
	R...204	57.11.3123	12 KOhm	1%, 0.25W, MF		
	R...205	57.11.3102	1 KOhm	1%, 0.25W, MF		
	R...206	57.11.3102	1 KOhm	1%, 0.25W, MF		
	R...207	57.11.3271	270 Ohm	1%, 0.25W, MF		

Ad	..POS..	...REF.No...	DESCRIPTION			MANUFACTURER
	R...208	57.11.3561	560 Ohm	1%, 0.25W, MF		
	R...209	57.11.3150	15 Ohm	1%, 0.25W, MF		
	R...210	57.11.3150	15 Ohm	1%, 0.25W, MF		
	R...300	57.99.0250	6.8 KOhm	0.1%, 0.25W, MF		
	R...301	57.99.0250	6.8 KOhm	0.1%, 0.25W, MF		
	R...302	57.11.3103	10 KOhm	1%, 0.25W, MF		
	R...303	57.11.3103	10 KOhm	1%, 0.25W, MF		
	R...304	57.11.3123	12 KOhm	1%, 0.25W, MF		
	R...305	57.11.3102	1 KOhm	1%, 0.25W, MF		
	R...306	57.11.3102	1 KOhm	1%, 0.25W, MF		
	R...307	57.11.3271	270 Ohm	1%, 0.25W, MF		
	R...308	57.11.3561	560 Ohm	1%, 0.25W, MF		
	R...309	57.11.3150	15 Ohm	1%, 0.25W, MF		
	R...310	57.11.3150	15 Ohm	1%, 0.25W, MF		
	R...400	57.99.0250	6.8 KOhm	0.1%, 0.25W, MF		
	R...401	57.99.0250	6.8 KOhm	0.1%, 0.25W, MF		
	R...402	57.11.3103	10 KOhm	1%, 0.25W, MF		
	R...403	57.11.3103	10 KOhm	1%, 0.25W, MF		
	R...404	57.11.3123	12 KOhm	1%, 0.25W, MF		
	R...405	57.11.3102	1 KOhm	1%, 0.25W, MF		
	R...406	57.11.3102	1 KOhm	1%, 0.25W, MF		
	R...407	57.11.3271	270 Ohm	1%, 0.25W, MF		
	R...408	57.11.3561	560 Ohm	1%, 0.25W, MF		
	R...409	57.11.3150	15 Ohm	1%, 0.25W, MF		
	R...410	57.11.3150	15 Ohm	1%, 0.25W, MF		
	R...500	57.99.0250	6.8 KOhm	0.1%, 0.25W, MF		
	R...501	57.99.0250	6.8 KOhm	0.1%, 0.25W, MF		
	R...502	57.11.3103	10 KOhm	1%, 0.25W, MF		
	R...503	57.11.3103	10 KOhm	1%, 0.25W, MF		
	R...504	57.11.3123	12 KOhm	1%, 0.25W, MF		
	R...505	57.11.3102	1 KOhm	1%, 0.25W, MF		
	R...506	57.11.3102	1 KOhm	1%, 0.25W, MF		
	R...507	57.11.3271	270 Ohm	1%, 0.25W, MF		
	R...508	57.11.3561	560 Ohm	1%, 0.25W, MF		
	R...509	57.11.3150	15 Ohm	1%, 0.25W, MF		
	R...510	57.11.3150	15 Ohm	1%, 0.25W, MF		
	R...600	57.99.0250	6.8 KOhm	0.1%, 0.25W, MF		
	R...601	57.99.0250	6.8 KOhm	0.1%, 0.25W, MF		
	R...602	57.11.3103	10 KOhm	1%, 0.25W, MF		
	R...603	57.11.3103	10 KOhm	1%, 0.25W, MF		
	R...604	57.11.3123	12 KOhm	1%, 0.25W, MF		
	R...605	57.11.3102	1 KOhm	1%, 0.25W, MF		
	R...606	57.11.3102	1 KOhm	1%, 0.25W, MF		
	R...607	57.11.3271	270 Ohm	1%, 0.25W, MF		
	R...608	57.11.3561	560 Ohm	1%, 0.25W, MF		
	R...609	57.11.3150	15 Ohm	1%, 0.25W, MF		
	R...610	57.11.3150	15 Ohm	1%, 0.25W, MF		
	S.....1	55.12.0004		2*2u		
	S.....2	55.12.0006		3*2u		
	T...100	1.022.417.00	1:3.16			ST
	T...200	1.022.417.00	1:3.16			ST
	T...300	1.022.417.00	1:3.16			ST
	T...400	1.022.417.00	1:3.16			ST
	T...500	1.022.417.00	1:3.16			ST
	T...600	1.022.417.00	1:3.16			ST
	XIC.100	53.03.0166	8-pole	IC-Socket		
	XIC.200	53.03.0166	8-pole	IC-Socket		
	XIC.300	53.03.0166	8-pole	IC-Socket		
	XIC.400	53.03.0166	8-pole	IC-Socket		
	XIC.500	53.03.0166	8-pole	IC-Socket		
	XIC.600	53.03.0166	8-pole	IC-Socket		

Input Channel 1-6 : NO. 100..- 600..
Master Channel : NO. 1....

Mf=Metalfilm

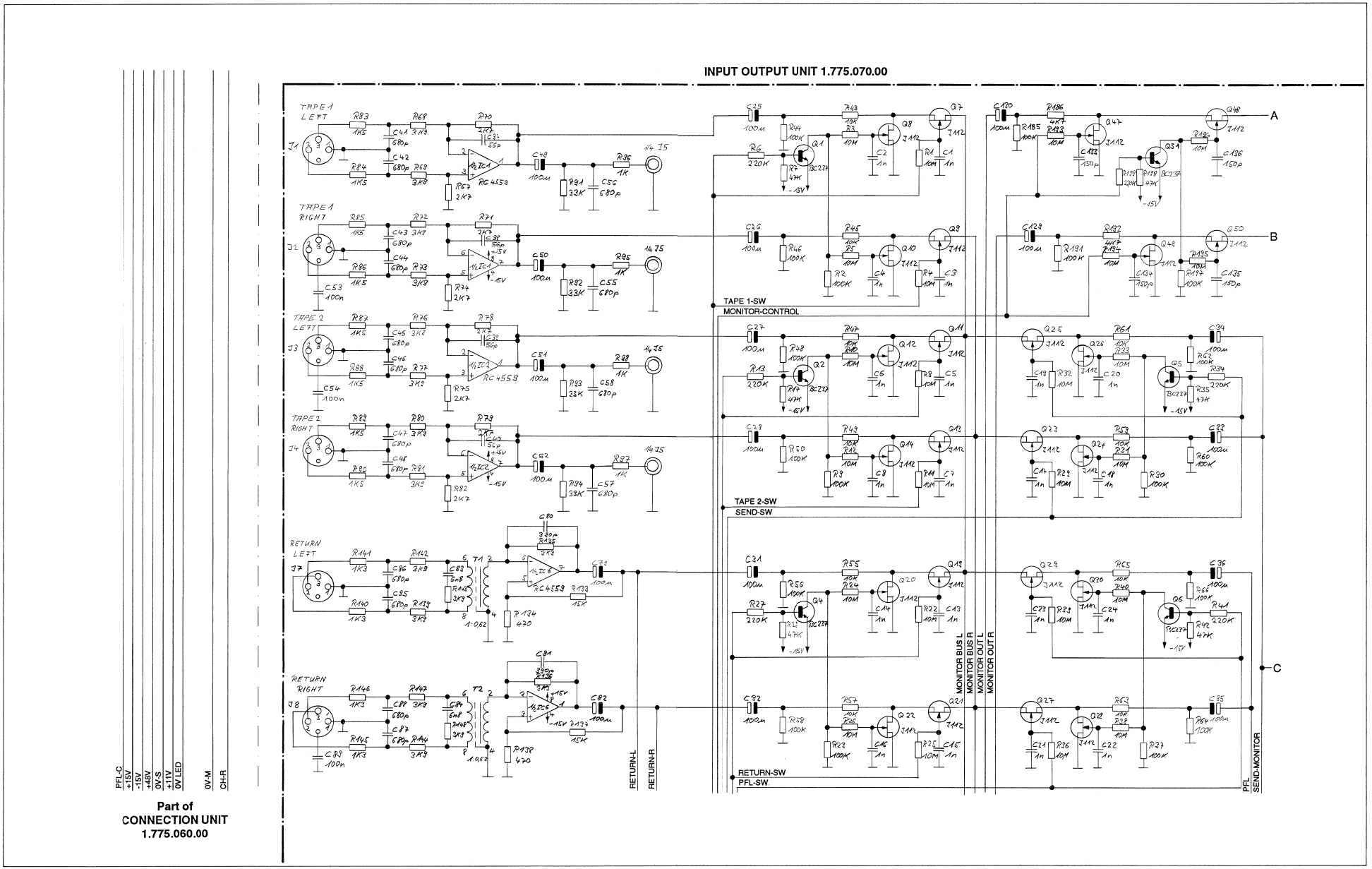
C=Ceramic,PETP=Polyester,EL=Electrolytic,PP=Polypropyles

MANUFACTURER: Sig=Signetics, ST=Studer

1.775.410.00 CONNECTION UNIT UL 89/04/2700

INPUT OUTPUT UNIT 1.775.070.00
· C.R. MONITOR UNIT 1.775.470.00

Overview: 1 2 3 4 5 6

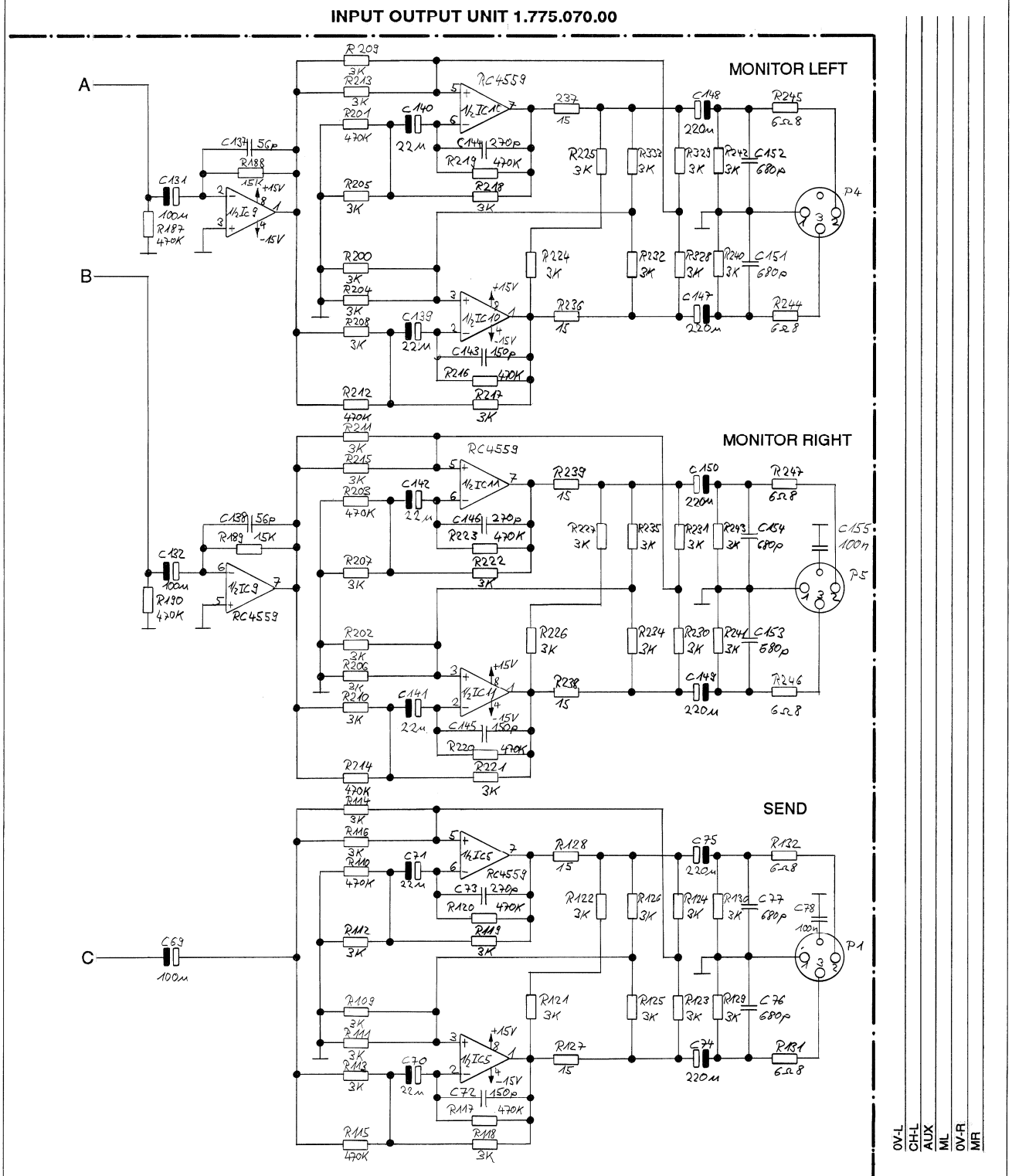


EDITION: 20.2.1995

INPUT OUTPUT UNIT 1.775.070.00
- C.R. MONITOR UNIT 1.775.470.00

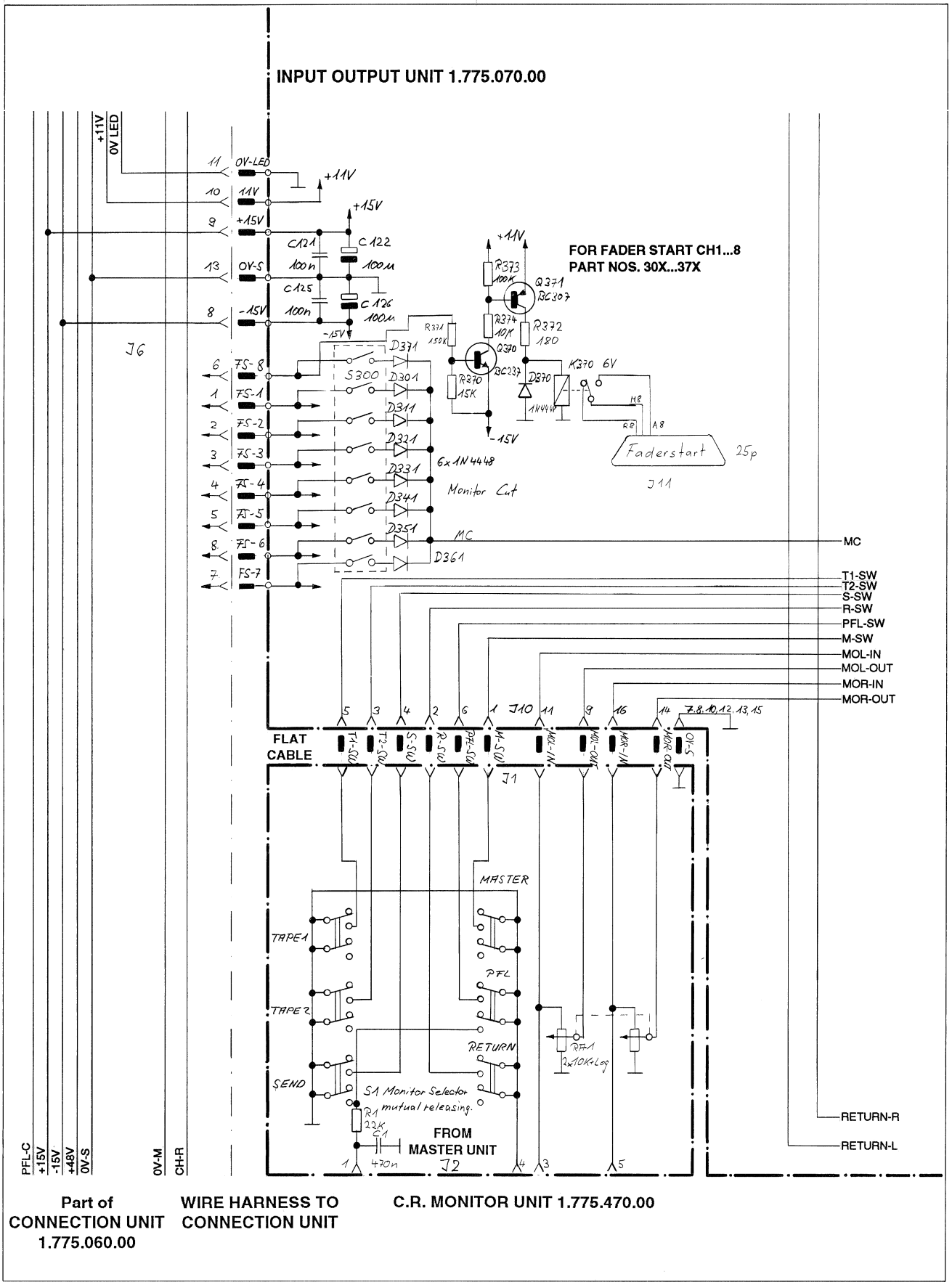
Overview:

1	2	3
4	5	6



INPUT OUTPUT UNIT 1.775.070.00
- C.R. MONITOR UNIT 1.775.470.00

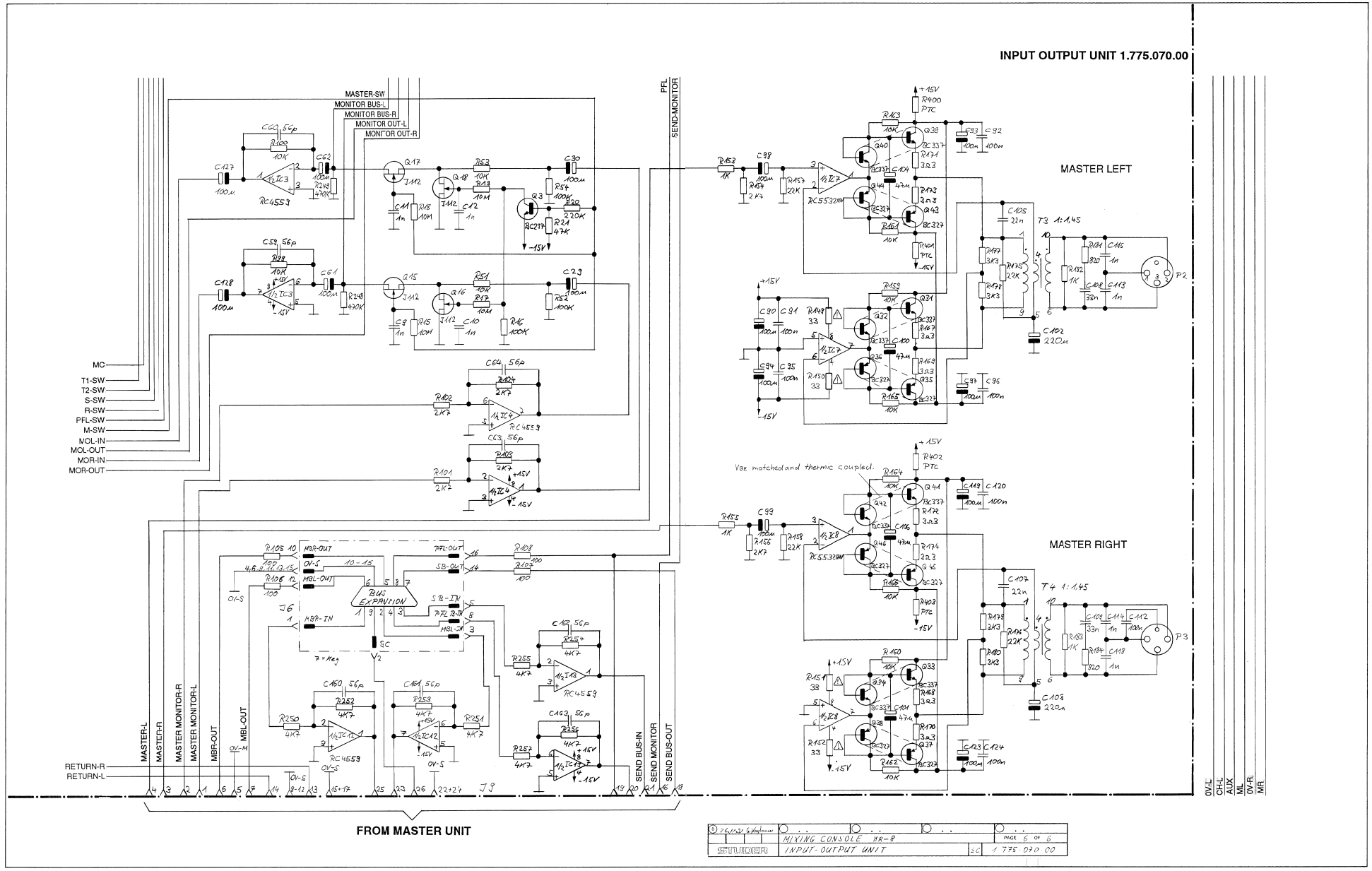
Overview:



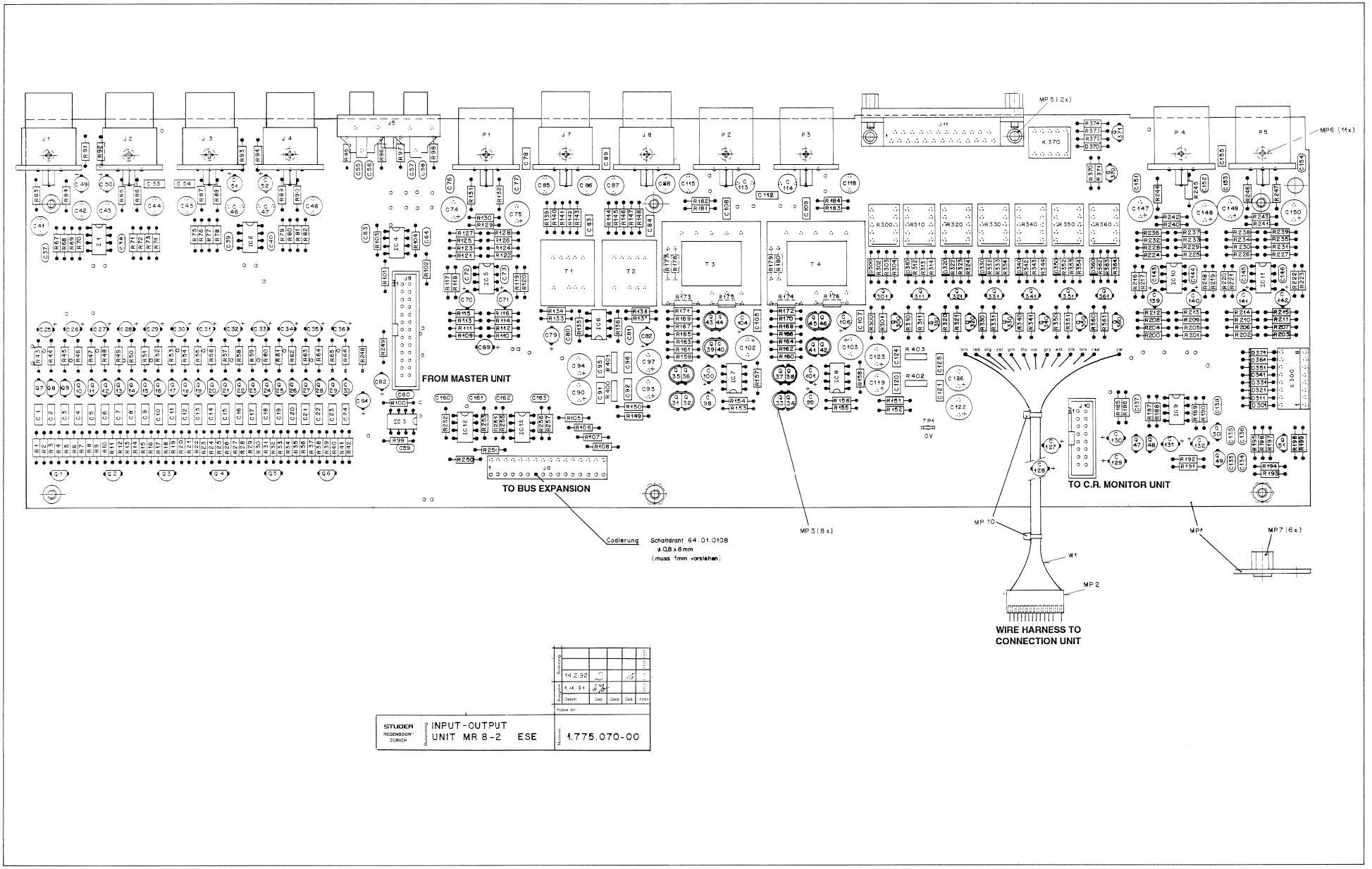
INPUT OUTPUT UNIT 1.775.070.00
- C.R. MONITOR UNIT 1.775.470.00

Overview:

1	2	3
4	5	6



INPUT OUTPUT UNIT 1.775.070.00



EDITION: 20.2.1995

INPUT OUTPUT UNIT 1.775.070.00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	C.....1	59.06.0102	1 nF 10%, 25V, PETP	
	C.....2	59.06.0102	1 nF 10%, 25V, PETP	
	C.....3	59.06.0102	1 nF 10%, 25V, PETP	
	C.....4	59.06.0102	1 nF 10%, 25V, PETP	
	C.....5	59.06.0102	1 nF 10%, 25V, PETP	
	C.....6	59.06.0102	1 nF 10%, 25V, PETP	
	C.....7	59.06.0102	1 nF 10%, 25V, PETP	
	C.....8	59.06.0102	1 nF 10%, 25V, PETP	
	C.....9	59.06.0102	1 nF 10%, 25V, PETP	
	C....10	59.06.0102	1 nF 10%, 25V, PETP	
	C....11	59.06.0102	1 nF 10%, 25V, PETP	
	C....12	59.06.0102	1 nF 10%, 25V, PETP	
	C....13	59.06.0102	1 nF 10%, 25V, PETP	
	C....14	59.06.0102	1 nF 10%, 25V, PETP	
	C....15	59.06.0102	1 nF 10%, 25V, PETP	
	C....16	59.06.0102	1 nF 10%, 25V, PETP	
	C....17	59.06.0102	1 nF 10%, 25V, PETP	
	C....18	59.06.0102	1 nF 10%, 25V, PETP	
	C....19	59.06.0102	1 nF 10%, 25V, PETP	
	C....20	59.06.0102	1 nF 10%, 25V, PETP	
	C....21	59.06.0102	1 nF 10%, 25V, PETP	
	C....22	59.06.0102	1 nF 10%, 25V, PETP	
	C....23	59.06.0102	1 nF 10%, 25V, PETP	
	C....24	59.06.0102	1 nF 10%, 25V, PETP	
	C....25	59.22.3101	100 uF -20%, 10V, EL	
	C....26	59.22.3101	100 uF -20%, 10V, EL	
	C....27	59.22.3101	100 uF -20%, 10V, EL	
	C....28	59.22.3101	100 uF -20%, 10V, EL	
	C....29	59.22.3101	100 uF -20%, 10V, EL	
	C....30	59.22.3101	100 uF -20%, 10V, EL	
	C....31	59.22.3101	100 uF -20%, 10V, EL	
	C....32	59.22.3101	100 uF -20%, 10V, EL	
	C....33	59.22.3101	100 uF -20%, 10V, EL	
	C....34	59.22.3101	100 uF -20%, 10V, EL	
	C....35	59.22.3101	100 uF -20%, 10V, EL	
	C....36	59.22.3101	100 uF -20%, 10V, EL	
	C....37	59.34.4560	56 pF 5%, 25V, C	
	C....38	59.34.4560	56 pF 5%, 25V, C	
	C....39	59.34.4560	56 pF 5%, 25V, C	
	C....40	59.34.4560	56 pF 5%, 25V, C	
	C....41	59.05.1681	680 pF 1%, 25V, PP	
	C....42	59.05.1681	680 pF 1%, 25V, PP	
	C....43	59.05.1681	680 pF 1%, 25V, PP	
	C....44	59.05.1681	680 pF 1%, 25V, PP	
	C....45	59.05.1681	680 pF 1%, 25V, PP	
	C....46	59.05.1681	680 pF 1%, 25V, PP	
	C....47	59.05.1681	680 pF 1%, 25V, PP	
	C....48	59.05.1681	680 pF 1%, 25V, PP	
	C....49	59.22.3101	100 uF -20%, 10V, EL	
	C....50	59.22.3101	100 uF -20%, 10V, EL	
	C....51	59.22.3101	100 uF -20%, 10V, EL	
	C....52	59.22.3101	100 uF -20%, 10V, EL	
	C....53	59.06.0104	100 nF 10%, 25V, PETP	
	C....54	59.06.0104	100 nF 10%, 25V, PETP	
	C....55	59.32.2681	680 pF 10%, 25V, C	
	C....56	59.32.2681	680 pF 10%, 25V, C	
	C....57	59.32.2681	680 pF 10%, 25V, C	
	C....58	59.32.2681	680 pF 10%, 25V, C	
	C....59	59.34.4560	56 pF 5%, 25V, C	
	C....60	59.34.4560	56 pF 5%, 25V, C	
	C....61	59.22.3101	100 uF -20%, 10V, EL	
	C....62	59.22.3101	100 uF -20%, 10V, EL	
	C....63	59.34.4560	56 pF 5%, 25V, C	
	C....64	59.34.4560	56 pF 5%, 25V, C	
	C....69	59.22.3101	100 uF -20%, 10V, EL	
	C....70	59.22.5220	22 uF -20%, 10V, EL	
	C....71	59.22.5220	22 uF -20%, 10V, EL	
	C....72	59.34.4151	150 pF 5%, 25V, C	
	C....73	59.34.4271	270 pF 5%, 25V, C	
	C....74	59.22.3221	220 uF -20%, 10V, EL	
	C....75	59.22.3221	220 uF -20%, 10V, EL	
	C....76	59.32.2681	680 pF 10%, 25V, C	
	C....77	59.32.2681	680 pF 10%, 25V, C	
	C....78	59.06.0104	100 nF 10%, 25V, PETP	
	C....79	59.22.3101	100 uF -20%, 10V, EL	
	C....80	59.34.5391	390 pF 5%, 25V, C	
	C....81	59.34.5391	390 pF 5%, 25V, C	
	C....82	59.22.3101	100 uF -20%, 10V, EL	
	C....83	59.06.5682	6.8 nF 5%, 25V, PETP	
	C....84	59.06.5682	6.8 nF 5%, 25V, PETP	
	C....85	59.05.1681	680 pF 1%, 25V, PP	
	C....86	59.05.1681	680 pF 1%, 25V, PP	
	C....87	59.05.1681	680 pF 1%, 25V, PP	
	C....88	59.05.1681	680 pF 1%, 25V, PP	
	C....89	59.06.0104	100 nF 10%, 25V, PETP	
	C....90	59.22.5101	100 uF -20%, 25V, EL	
	C....91	59.06.0104	100 nF 10%, 25V, PETP	
	C....92	59.06.0104	100 nF 10%, 25V, PETP	
	C....93	59.22.5101	100 uF -20%, 25V, EL	
	C....94	59.22.5101	100 uF -20%, 25V, EL	
	C....95	59.06.0104	100 nF 10%, 25V, PETP	
	C....96	59.06.0104	100 nF 10%, 25V, PETP	
	C....97	59.22.5101	100 uF -20%, 25V, EL	
	C....98	59.22.3101	100 uF -20%, 10V, EL	
	C....99	59.22.3101	100 uF -20%, 10V, EL	
	C...100	59.22.3470	47 uF -20%, 10V, EL	
	C...101	59.22.3470	47 uF -20%, 10V, EL	
	C...102	59.22.3221	220 uF -20%, 10V, EL	
	C...103	59.22.3221	220 uF -20%, 10V, EL	
	C...104	59.22.3470	47 uF -20%, 10V, EL	
	C...105	59.06.0223	22 nF 10%, 25V, PETP	
	C...106	59.22.3470	47 uF -20%, 10V, EL	
	C...107	59.06.0223	22 nF 10%, 25V, PETP	
	C...108	59.06.0333	33 nF 10%, 25V, PETP	
	C...109	59.06.0333	33 nF 10%, 25V, PETP	
	C...112	59.06.0104	100 nF 10%, 25V, PETP	
	C...113	59.05.1102	1 nF 1%, 25V, PP	
	C...114	59.05.1102	1 nF 1%, 25V, PP	
	C...115	59.05.1102	1 nF 1%, 25V, PP	
	C...118	59.05.1102	1 nF 1%, 25V, PP	
	C...119	59.22.5101	100 uF -20%, 25V, EL	
	C...120	59.06.0104	100 nF 10%, 25V, PETP	
	C...121	59.06.0104	100 nF 10%, 25V, PETP	
	C...122	59.22.5101	100 uF -20%, 25V, EL	
	C...123	59.22.5101	100 uF -20%, 25V, EL	
	C...124	59.06.0104	100 nF 10%, 25V, PETP	
	C...125	59.06.0104	100 nF 10%, 25V, PETP	
	C...126	59.22.5101	100 uF -20%, 25V, EL	
	C...127	59.22.3101	100 uF -20%, 10V, EL	
	C...128	59.22.3101	100 uF -20%, 10V, EL	
	C...129	59.22.3101	100 uF -20%, 10V, EL	
	C...130	59.22.3101	100 uF -20%, 10V, EL	
	C...131	59.22.3101	100 uF -20%, 10V, EL	
	C...132	59.22.3101	100 uF -20%, 10V, EL	
	C...133	59.34.4151	150 pF 5%, 25V, C	
	C...134	59.34.4151	150 pF 5%, 25V, C	
	C...135	59.34.4151	150 pF 5%, 25V, C	
	C...136	59.34.4151	150 pF 5%, 25V, C	
	C...137	59.34.4560	56 pF 5%, 25V, C	
	C...138	59.34.4560	56 pF 5%, 25V, C	
	C...139	59.22.5220	22 uF -20%, 10V, EL	
	C...140	59.22.5220	22 uF -20%, 10V, EL	
	C...141	59.22.5220	22 uF -20%, 10V, EL	
	C...142	59.22.5220	22 uF -20%, 10V, EL	
	C...143	59.34.4151	150 pF 5%, 25V, C	
	C...144	59.34.4271	270 pF 5%, 25V, C	
	C...145	59.34.4151	150 pF 5%, 25V, C	
	C...146	59.34.4271	270 pF 5%, 25V, C	
	C...147	59.22.3221	220 uF -20%, 10V, EL	
	C...148	59.22.3221	220 uF -20%, 10V, EL	
	C...149	59.22.3221	220 uF -20%, 10V, EL	
	C...150	59.22.3221	220 uF -20%, 10V, EL	
	C...151	59.32.2681	680 pF 10%, 25V, C	
	C...152	59.32.2681	680 pF 10%, 25V, C	
	C...153	59.32.2681	680 pF 10%, 25V, C	
	C...154	59.32.2681	680 pF 10%, 25V, C	
	C...155	59.06.0104	100 nF 10%, 25V, PETP	
	C...160	59.34.4560	56 pF 5%, 25V, C	
	C...161	59.34.4560	56 pF 5%, 25V, C	
	C...162	59.34.4560	56 pF 5%, 25V, C	
	C...163	59.34.4560	56 pF 5%, 25V, C	
	D...300	50.04.0125	1N 4448	
	D...301	50.04.0125	1N 4448	
	D...310	50.04.0125	1N 4448	
	D...311	50.04.0125	1N 4448	
	D...320	50.04.0125	1N 4448	
	D...321	50.04.0125	1N 4448	
	D...330	50.04.0125	1N 4448	
	D...331	50.04.0125	1N 4448	
	D...340	50.04.0125	1N 4448	
	D...341	50.04.0125	1N 4448	
	D...350	50.04.0125	1N 4448	
	D...351	50.04.0125	1N 4448	
	D...360	50.04.0125	1N 4448	
	D...361	50.04.0125	1N 4448	
	D...370	50.04.0125	1N 4448	
	D...371	50.04.0125	1N 4448	
	IC....1	50.09.0107	RC4559	Ra
	IC....2	50.09.0107	RC4559	Ra
	IC....3	50.09.0107	RC4559	Ra
	IC....4	50.09.0107	RC4559	Ra
	IC....5	50.09.0107	RC4559	Ra
	IC....6	50.09.0107	RC4559	Ra
	IC....7	50.09.0106	RC5532AN	Ra
	IC....8	50.09.0106	RC5532AN	Ra
	IC....9	50.09.0107	RC4559	Ra
	IC...10	50.09.0107	RC4559	Ra
	IC...11	50.09.0107	RC4559	Ra
	IC...12	50.09.0107	RC4559	Ra
	IC...13	50.09.0107	RC4559	Ra
	J.....1	54.21.2201	XLR	
	J.....2	54.21.2201	XLR	
	J.....3	54.21.2201	XLR	
	J.....4	54.21.2201	XLR	

INPUT OUTPUT UNIT 1.775.070.00

Ad	..POS..	...REF.No...	DESCRIPTION		MANUFACTURER
	J.....5	54.21.2007	4-Pole	Cinch	
	J.....6	54.01.0294	16-Pole	CIS	
	J.....7	54.21.2201		XLR	
	J.....8	54.21.2201		XLR	
	J.....9	54.14.2003	26-Pole	Connector for Flat-Cabel	
	J....10	54.14.2002	16-Pole	Connector for Flat-Cabel	
	J....11	54.99.0250	25-Pole	Connector D-Typ	
	K...300	56.04.0195	6V	Relay	
	K...310	56.04.0195	6V	Relay	
	K...320	56.04.0195	6V	Relay	
	K...330	56.04.0195	6V	Relay	
	K...340	56.04.0195	6V	Relay	
	K...350	56.04.0195	6V	Relay	
	K...360	56.04.0195	6V	Relay	
	K...370	56.04.0195	6V	Relay	
	MP....1	1.775.070.11		INPUT-OUTPUT PCB	
	MP....2	54.01.0281	13-Pole	CIS	
	MP....3	50.20.2001	8 pcs	Thermo Clip	
	MP....5	28.21.2409	2 pcs	Tubular-Rivet 3.0*7.0	
	MP....6	20.99.0103	11 pcs	Screw	
	MP....7	1.010.017.22	6 pcs	Tubular-Rivet	
	MP....8	43.01.0108		ESE Label	
	MP....9	1.775.070.01		Nr. Label	
	MP...10	35.03.0109	2 pcs	Mounting-Belt	
	P.....1	54.21.2200		XLR	
	P.....2	54.21.2200		XLR	
	P.....3	54.21.2200		XLR	
	P.....4	54.21.2200		XLR	
	P.....5	54.21.2200		XLR	
	Q.....1	50.03.0436	BC237	NPN	
	Q.....2	50.03.0436	BC237	NPN	
	Q.....3	50.03.0436	BC237	NPN	
	Q.....4	50.03.0436	BC237	NPN	
	Q.....5	50.03.0436	BC237	NPN	
	Q.....6	50.03.0436	BC237	NPN	
	Q.....7	50.03.0350	J 112	FET	Mot
	Q.....8	50.03.0350	J 112	FET	Mot
	Q.....9	50.03.0350	J 112	FET	Mot
	Q....10	50.03.0350	J 112	FET	Mot
	Q....11	50.03.0350	J 112	FET	Mot
	Q....12	50.03.0350	J 112	FET	Mot
	Q....13	50.03.0350	J 112	FET	Mot
	Q....14	50.03.0350	J 112	FET	Mot
	Q....15	50.03.0350	J 112	FET	Mot
	Q....16	50.03.0350	J 112	FET	Mot
	Q....17	50.03.0350	J 112	FET	Mot
	Q....18	50.03.0350	J 112	FET	Mot
	Q....19	50.03.0350	J 112	FET	Mot
	Q....20	50.03.0350	J 112	FET	Mot
	Q....21	50.03.0350	J 112	FET	Mot
	Q....22	50.03.0350	J 112	FET	Mot
	Q....23	50.03.0350	J 112	FET	Mot
	Q....24	50.03.0350	J 112	FET	Mot
	Q....25	50.03.0350	J 112	FET	Mot
	Q....26	50.03.0350	J 112	FET	Mot
	Q....27	50.03.0350	J 112	FET	Mot
	Q....28	50.03.0350	J 112	FET	Mot
	Q....29	50.03.0350	J 112	FET	Mot
	Q....30	50.03.0350	J 112	FET	Mot
	Q....31	50.03.0516	BC337	NPN match	
	Q....32	50.03.0516	BC337	NPN match	
	Q....33	50.03.0516	BC337	NPN match	
	Q....34	50.03.0516	BC337	NPN match	
	Q....35	50.03.0625	BC327	PNP match	
	Q....36	50.03.0625	BC327	PNP match	
	Q....37	50.03.0625	BC327	PNP match	
	Q....38	50.03.0625	BC327	PNP match	
	Q....39	50.03.0516	BC337	NPN match	
	Q....40	50.03.0516	BC337	NPN match	
	Q....41	50.03.0516	BC337	NPN match	
	Q....42	50.03.0516	BC337	NPN match	
	Q....43	50.03.0625	BC327	PNP match	
	Q....44	50.03.0625	BC327	PNP match	
	Q....45	50.03.0625	BC327	PNP match	
	Q....46	50.03.0625	BC327	PNP match	
	Q....47	50.03.0350	J 112	FET	Mot
	Q....48	50.03.0350	J 112	FET	Mot
	Q....49	50.03.0350	J 112	FET	Mot
	Q....50	50.03.0350	J 112	FET	Mot
	Q....51	50.03.0436	BC 237	NPN	
	Q...300	50.03.0436	BC 237	NPN	
	Q...301	50.03.0515	BC 307	PNP	
	Q...310	50.03.0436	BC 237	NPN	
	Q...311	50.03.0515	BC 307	PNP	
	Q...320	50.03.0436	BC 237	NPN	
	Q...321	50.03.0515	BC 307	PNP	
	Q...330	50.03.0436	BC 237	NPN	
	Q...331	50.03.0515	BC 307	PNP	
	Q...340	50.03.0436	BC 237	NPN	
	Q...341	50.03.0515	BC 307	PNP	
	Q...350	50.03.0436	BC 237	NPN	
	Q...351	50.03.0515	BC 307	PNP	
	Q...360	50.03.0436	BC 237	NPN	
	Q...361	50.03.0515	BC 307	PNP	
	Q...370	50.03.0436	BC 237	NPN	
	Q...371	50.03.0515	BC 307	PNP	

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	R.....1	57.11.5106	10 MOhm	10%, 0.25W, MF
	R.....2	57.11.3104	100 KOhm	1%, 0.25W, MF
	R.....3	57.11.5106	10 MOhm	10%, 0.25W, MF
	R.....4	57.11.5106	10 MOhm	10%, 0.25W, MF
	R.....5	57.11.5106	10 MOhm	10%, 0.25W, MF
	R.....6	57.11.3224	220 KOhm	1%, 0.25W, MF
	R.....7	57.11.3473	47 KOhm	1%, 0.25W, MF
	R.....8	57.11.5106	10 MOhm	10%, 0.25W, MF
	R.....9	57.11.3104	100 KOhm	1%, 0.25W, MF
	R....10	57.11.5106	10 MOhm	10%, 0.25W, MF
	R....11	57.11.5106	10 MOhm	10%, 0.25W, MF
	R....12	57.11.5106	10 MOhm	10%, 0.25W, MF
	R....13	57.11.3224	220 KOhm	1%, 0.25W, MF
	R....14	57.11.3473	47 KOhm	1%, 0.25W, MF
	R....15	57.11.5106	10 MOhm	10%, 0.25W, MF
	R....16	57.11.3104	100 KOhm	1%, 0.25W, MF
	R....17	57.11.5106	10 MOhm	10%, 0.25W, MF
	R....18	57.11.5106	10 MOhm	10%, 0.25W, MF
	R....19	57.11.5106	10 MOhm	10%, 0.25W, MF
	R....20	57.11.3224	220 KOhm	1%, 0.25W, MF
	R....21	57.11.3473	47 KOhm	1%, 0.25W, MF
	R....22	57.11.5106	10 MOhm	10%, 0.25W, MF
	R....23	57.11.3104	100 KOhm	1%, 0.25W, MF
	R....24	57.11.5106	10 MOhm	10%, 0.25W, MF
	R....25	57.11.5106	10 MOhm	10%, 0.25W, MF
	R....26	57.11.5106	10 MOhm	10%, 0.25W, MF
	R....27	57.11.3224	220 KOhm	1%, 0.25W, MF
	R....28	57.11.3473	47 KOhm	1%, 0.25W, MF
	R....29	57.11.5106	10 MOhm	10%, 0.25W, MF
	R....30	57.11.3104	100 KOhm	1%, 0.25W, MF
	R....31	57.11.5106	10 MOhm	10%, 0.25W, MF
	R....32	57.11.5106	10 MOhm	10%, 0.25W, MF
	R....33	57.11.5106	10 MOhm	10%, 0.25W, MF
	R....34	57.11.3224	220 KOhm	1%, 0.25W, MF
	R....35	57.11.3473	47 KOhm	1%, 0.25W, MF
	R....36	57.11.5106	10 MOhm	10%, 0.25W, MF
	R....37	57.11.3104	100 KOhm	1%, 0.25W, MF
	R....38	57.11.5106	10 MOhm	10%, 0.25W, MF
	R....39	57.11.5106	10 MOhm	10%, 0.25W, MF
	R....40	57.11.5106	10 MOhm	10%, 0.25W, MF
	R....41	57.11.3224	220 KOhm	1%, 0.25W, MF
	R....42	57.11.3473	47 KOhm	1%, 0.25W, MF
	R....43	57.11.3103	10 KOhm	1%, 0.25W, MF
	R....44	57.11.3104	100 KOhm	1%, 0.25W, MF
	R....45	57.11.3103	10 KOhm	1%, 0.25W, MF
	R....46	57.11.3104	100 KOhm	1%, 0.25W, MF
	R....47	57.11.3103	10 KOhm	1%, 0.25W, MF
	R....48	57.11.3104	100 KOhm	1%, 0.25W, MF
	R....49	57.11.3103	10 KOhm	1%, 0.25W, MF
	R....50	57.11.3104	100 KOhm	1%, 0.25W, MF
	R....51	57.11.3103	10 KOhm	1%, 0.25W, MF
	R....52	57.11.3104	100 KOhm	1%, 0.25W, MF
	R....53	57.11.3103	10 KOhm	1%, 0.25W, MF
	R....54	57.11.3104	100 KOhm	1%, 0.25W, MF
	R....55	57.11.3103	10 KOhm	1%, 0.25W, MF
	R....56	57.11.3104	100 KOhm	1%, 0.25W, MF
	R....57	57.11.3103	10 KOhm	1%, 0.25W, MF
	R....58	57.11.3104	100 KOhm	1%, 0.25W, MF
	R....59	57.11.3103	10 KOhm	1%, 0.25W, MF
	R....60	57.11.3104	100 KOhm	1%, 0.25W, MF
	R....61	57.11.3103	10 KOhm	1%, 0.25W, MF
	R....62	57.11.3104	100 KOhm	1%, 0.25W, MF
	R....63	57.11.3103	10 KOhm	1%, 0.25W, MF
	R....64	57.11.3104	100 KOhm	1%, 0.25W, MF
	R....65	57.11.3103	10 KOhm	1%, 0.25W, MF
	R....66	57.11.3104	100 KOhm	1%, 0.25W, MF
	R....67	57.11.3272	2.7 KOhm	1%, 0.25W, MF
	R....68	57.11.3392	3.9 KOhm	1%, 0.25W, MF
	R....69	57.11.3392	3.9 KOhm	1%, 0.25W, MF
	R....70	57.11.3272	2.7 KOhm	1%, 0.25W, MF
	R....71	57.11.3272	2.7 KOhm	1%, 0.25W, MF
	R....72	57.11.3392	3.9 KOhm	1%, 0.25W, MF
	R....73	57.11.3392	3.9 KOhm	1%, 0.25W, MF
	R....74	57.11.3272	2.7 KOhm	1%, 0.25W, MF
	R....75	57.11.3272	2.7 KOhm	1%, 0.25W, MF
	R....76	57.11.3392	3.9 KOhm	1%, 0.25W, MF
	R....77	57.11.3392	3.9 KOhm	1%, 0.25W, MF
	R....78	57.11.3272	2.7 KOhm	1%, 0.25W, MF
	R....79	57.11.3272	2.7 KOhm	1%, 0.25W, MF
	R....80	57.11.3392	3.9 KOhm	1%, 0.25W, MF
	R....81	57.11.3392	3.9 KOhm	1%, 0.25W, MF
	R....82	57.11.3272	2.7 KOhm	1%, 0.25W, MF
	R....83	57.11.3152	1.5 KOhm	1%, 0.25W, MF
	R....84	57.11.3152	1.5 KOhm	1%, 0.25W, MF
	R....85	57.11.3152	1.5 KOhm	1%, 0.25W, MF
	R....86	57.11.3152	1.5 KOhm	1%, 0.25W, MF
	R....87	57.11.3152	1.5 KOhm	1%, 0.25W, MF

INPUT OUTPUT UNIT 1.775.070.00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	R....88	57.11.3152	1.5 KOhm 1%, 0.25W, MF	
	R....89	57.11.3152	1.5 KOhm 1%, 0.25W, MF	
	R....90	57.11.3152	1.5 KOhm 1%, 0.25W, MF	
	R....91	57.11.3333	33 KOhm 1%, 0.25W, MF	
	R....92	57.11.3333	33 KOhm 1%, 0.25W, MF	
	R....93	57.11.3333	33 KOhm 1%, 0.25W, MF	
	R....94	57.11.3333	33 KOhm 1%, 0.25W, MF	
	R....95	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R....96	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R....97	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R....98	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R....99	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...100	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...101	57.11.3272	2.7 KOhm 1%, 0.25W, MF	
	R...102	57.11.3272	2.7 KOhm 1%, 0.25W, MF	
	R...103	57.11.3272	2.7 KOhm 1%, 0.25W, MF	
	R...104	57.11.3272	2.7 KOhm 1%, 0.25W, MF	
	R...105	57.11.3101	100 Ohm 1%, 0.25W, MF	
	R...106	57.11.3101	100 Ohm 1%, 0.25W, MF	
	R...107	57.11.3101	100 Ohm 1%, 0.25W, MF	
	R...108	57.11.3101	100 Ohm 1%, 0.25W, MF	
	R...109	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...110	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...111	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...112	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...113	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...114	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...115	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...116	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...117	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...118	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...119	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...120	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...121	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...122	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...123	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...124	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...125	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...126	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...127	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...128	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...129	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...130	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...131	57.11.3689	6.8 Ohm 1%, 0.25W, MF	
	R...132	57.11.3689	6.8 Ohm 1%, 0.25W, MF	
	R...133	57.11.3153	15 KOhm 1%, 0.25W, MF	
	R...134	57.11.3471	470 Ohm 1%, 0.25W, MF	
	R...135	57.11.3332	3.3 KOhm 1%, 0.25W, MF	
	R...136	57.11.3332	3.3 KOhm 1%, 0.25W, MF	
	R...137	57.11.3153	15 KOhm 1%, 0.25W, MF	
	R...138	57.11.3471	470 Ohm 1%, 0.25W, MF	
	R...139	57.11.3392	3.9 KOhm 1%, 0.25W, MF	
	R...140	57.11.3132	1.3 KOhm 1%, 0.25W, MF	
	R...141	57.11.3132	1.3 KOhm 1%, 0.25W, MF	
	R...142	57.11.3392	3.9 KOhm 1%, 0.25W, MF	
	R...143	57.11.3392	3.9 KOhm 1%, 0.25W, MF	
	R...144	57.11.3392	3.9 KOhm 1%, 0.25W, MF	
	R...145	57.11.3132	1.3 KOhm 1%, 0.25W, MF	
	R...146	57.11.3132	1.3 KOhm 1%, 0.25W, MF	
	R...147	57.11.3392	3.9 KOhm 1%, 0.25W, MF	
	R...148	57.11.3392	3.9 KOhm 1%, 0.25W, MF	
	R...149	57.19.0330	33 Ohm 5%, 0.33W Fusible Resistor /!\	
	R...150	57.19.0330	33 Ohm 5%, 0.33W Fusible Resistor /!\	
	R...151	57.19.0330	33 Ohm 5%, 0.33W Fusible Resistor /!\	
	R...152	57.19.0330	33 Ohm 5%, 0.33W Fusible Resistor /!\	
	R...153	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R...154	57.11.3272	2.7 KOhm 1%, 0.25W, MF	
	R...155	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R...156	57.11.3272	2.7 KOhm 1%, 0.25W, MF	
	R...157	57.11.3223	22 KOhm 1%, 0.25W, MF	
	R...158	57.11.3223	22 KOhm 1%, 0.25W, MF	
	R...159	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...160	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...161	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...162	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...163	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...164	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...165	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...166	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...167	57.11.3339	3.3 Ohm 1%, 0.25W, MF	
	R...168	57.11.3339	3.3 Ohm 1%, 0.25W, MF	
	R...169	57.11.3339	3.3 Ohm 1%, 0.25W, MF	
	R...170	57.11.3339	3.3 Ohm 1%, 0.25W, MF	
	R...171	57.11.3339	3.3 Ohm 1%, 0.25W, MF	
	R...172	57.11.3339	3.3 Ohm 1%, 0.25W, MF	
	R...173	57.11.3339	3.3 Ohm 1%, 0.25W, MF	
	R...174	57.11.3339	3.3 Ohm 1%, 0.25W, MF	
	R...175	57.11.3223	22 KOhm 1%, 0.25W, MF	
	R...176	57.11.3223	22 KOhm 1%, 0.25W, MF	
	R...177	57.11.3332	3.3 KOhm 1%, 0.25W, MF	
	R...178	57.11.3332	3.3 KOhm 1%, 0.25W, MF	
	R...179	57.11.3332	3.3 KOhm 1%, 0.25W, MF	
	R...180	57.11.3332	3.3 KOhm 1%, 0.25W, MF	
	R...181	57.11.3821	820 Ohm 1%, 0.25W, MF	
	R...182	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R...183	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R...184	57.11.3821	820 Ohm 1%, 0.25W, MF	
	R...185	57.11.3104	100 KOhm 1%, 0.25W, MF	
	R...186	57.11.3472	4.7 KOhm 1%, 0.25W, MF	
	R...187	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...188	57.11.3153	15 KOhm 1%, 0.25W, MF	
	R...189	57.11.3153	15 KOhm 1%, 0.25W, MF	
	R...190	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...191	57.11.3104	100 KOhm 1%, 0.25W, MF	
	R...192	57.11.3472	4.7 KOhm 1%, 0.25W, MF	
	R...193	57.11.5106	10 MOhm 10%, 0.25W, MF	
	R...194	57.11.5106	10 MOhm 10%, 0.25W, MF	
	R...195	57.11.5106	10 MOhm 10%, 0.25W, MF	
	R...196	57.11.5106	10 MOhm 10%, 0.25W, MF	
	R...197	57.11.3104	100 KOhm 1%, 0.25W, MF	
	R...198	57.11.3473	47 KOhm 1%, 0.25W, MF	
	R...199	57.11.3224	220 KOhm 1%, 0.25W, MF	
	R...200	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...201	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...202	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...203	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...204	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...205	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...206	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...207	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...208	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...209	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...210	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...211	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...212	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...213	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...214	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...215	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...216	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...217	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...218	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...219	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...220	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...221	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...222	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...223	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...224	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...225	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...226	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...227	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...228	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...229	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...230	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...231	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...232	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...233	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...234	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...235	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...236	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...237	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...238	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...239	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...240	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...241	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...242	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...243	57.11.3302	3 KOhm 1%, 0.25W, MF	
	R...244	57.11.3689	6.8 Ohm 1%, 0.25W, MF	
	R...245	57.11.3689	6.8 Ohm 1%, 0.25W, MF	
	R...246	57.11.3689	6.8 Ohm 1%, 0.25W, MF	
	R...247	57.11.3689	6.8 Ohm 1%, 0.25W, MF	
	R...248	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...249	57.11.3474	470 KOhm 1%, 0.25W, MF	
	R...250	57.11.3472	4.7 KOhm 1%, 0.25W, MF	
	R...251	57.11.3472	4.7 KOhm 1%, 0.25W, MF	
	R...252	57.11.3472	4.7 KOhm 1%, 0.25W, MF	
	R...253	57.11.3472	4.7 KOhm 1%, 0.25W, MF	
	R...254	57.11.3472	4.7 KOhm 1%, 0.25W, MF	
	R...255	57.11.3472	4.7 KOhm 1%, 0.25W, MF	
	R...256	57.11.3472	4.7 KOhm 1%, 0.25W, MF	
	R...257	57.11.3472	4.7 KOhm 1%, 0.25W, MF	
	R...300	57.11.3153	15 KOhm 1%, 0.25W, MF	
	R...301	57.11.3154	150 KOhm 1%, 0.25W, MF	
	R...302	57.11.3181	180 Ohm 1%, 0.25W, MF	
	R...303	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...304	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...310	57.11.3153	15 KOhm 1%, 0.25W, MF	
	R...311	57.11.3154	150 KOhm 1%, 0.25W, MF	
	R...312	57.11.3181	180 Ohm 1%, 0.25W, MF	
	R...313	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...314	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...320	57.11.3153	15 KOhm 1%, 0.25W, MF	
	R...321	57.11.3154	150 KOhm 1%, 0.25W, MF	
	R...322	57.11.3181	180 Ohm 1%, 0.25W, MF	
	R...323	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...324	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...330	57.11.3153	15 KOhm 1%, 0.25W, MF	
	R...331	57.11.3154	150 KOhm 1%, 0.25W, MF	
	R...332	57.11.3181	180 Ohm 1%, 0.25W, MF	
	R...333	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...334	57.11.3103	10 KOhm 1%, 0.25W, MF	

INPUT OUTPUT UNIT 1.775.070.00

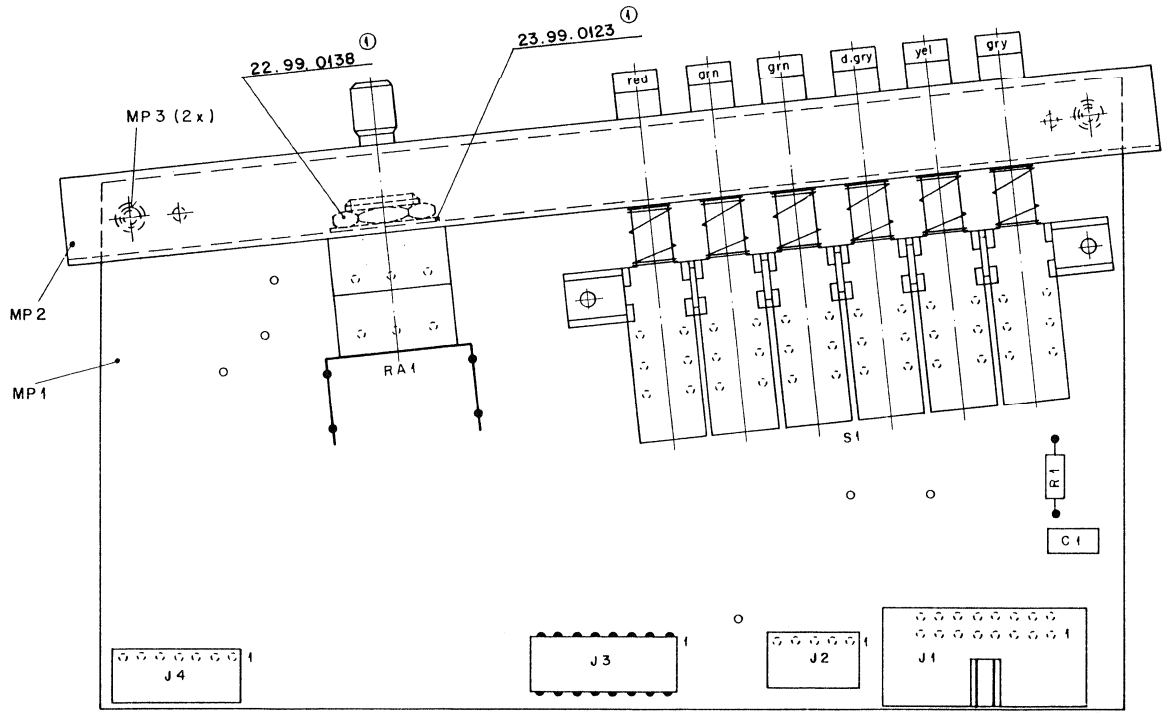
Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	R...340	57.11.3153	15 KOhm 1%, 0.25W, MF	
	R...341	57.11.3154	150 KOhm 1%, 0.25W, MF	
	R...342	57.11.3181	180 Ohm 1%, 0.25W, MF	
	R...343	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...344	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...350	57.11.3153	15 KOhm 1%, 0.25W, MF	
	R...351	57.11.3154	150 KOhm 1%, 0.25W, MF	
	R...352	57.11.3181	180 Ohm 1%, 0.25W, MF	
	R...353	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...354	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...360	57.11.3153	15 KOhm 1%, 0.25W, MF	
	R...361	57.11.3154	150 KOhm 1%, 0.25W, MF	
	R...362	57.11.3181	180 Ohm 1%, 0.25W, MF	
	R...363	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...364	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...370	57.11.3153	15 KOhm 1%, 0.25W, MF	
	R...371	57.11.3154	150 KOhm 1%, 0.25W, MF	
	R...372	57.11.3181	180 Ohm 1%, 0.25W, MF	
	R...373	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...374	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...400	57.92.1121	22 Ohm PTC 56V	
	R...401	57.92.1121	22 Ohm PTC 56V	
	R...402	57.92.1121	22 Ohm PTC 56V	
	R...403	57.92.1121	22 Ohm PTC 56V	
	S...300	55.12.1108	8x on/off Switch	
	T.....1	1.022.451.00	Input-Transformer 1:0,62	ST
	T.....2	1.022.451.00	Input-Transformer 1:0,62	ST
	T.....3	1.022.362.00	Output-Transformer 1:1,45	ST
	T.....4	1.022.362.00	Output-Transformer 1:1,45	ST
	TP....1	54.02.0320	Flatpin 2.8*0.8, male	
	W.....1	1.775.070.93	Wire List	

MF=Metal-film, El=Electrolytic, Cer=Ceramic, PETP=Polyester, PP=Polypropylen

MANUFACTURER: Mot=Motorola, Ra=Raytheon, ST=Studer

1.775.070.00 IN/OUTPUT UNIT KG 92/01/2200

C.R. MONITOR UNIT 1.775.470.00



Änderung					
					③
					②
	8.1.91				①
Ausgabe	13.6.89				⓪
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

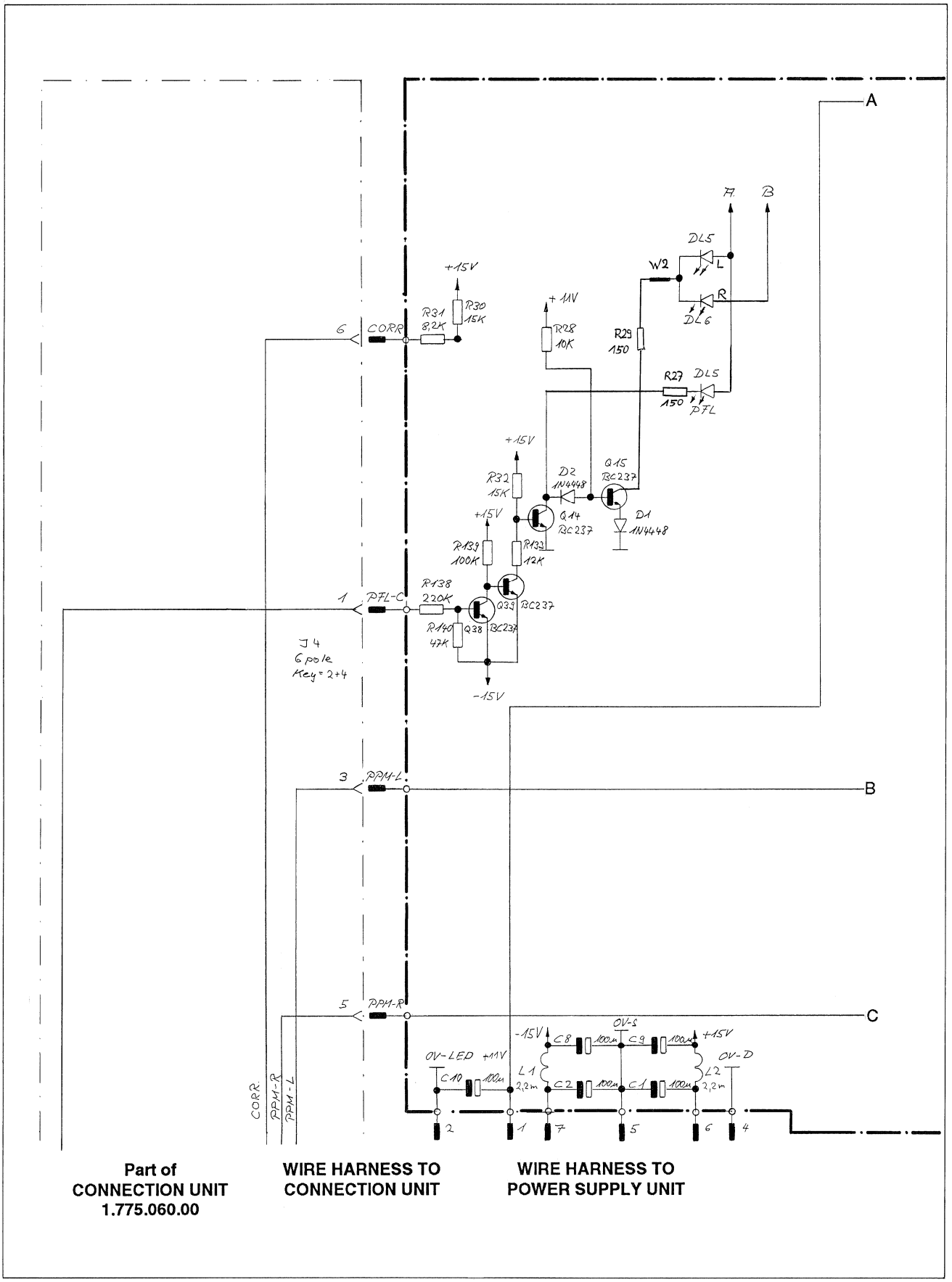
STUDER REGENSDORF ZÜRICH	Benennung: CR-MONITOR UNIT	Nummer: 1.775.470-00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	C.....1	59.06.0474	470 nF 10%, 50V, EL	
	J.....1	54.14.2072	16-Pole PCB Connector for Flat-Cable	
	J.....2	54.01.0246	5-Pole CIS	
	J.....3	54.01.0306	8-Pole CIS	
	J.....4	54.01.0263	7-Pole CIS	
	MP....1	1.775.470.11	CR MONITOR	
	MP....2	1.775.470.01	U-Profile	
	MP....3	21.38.1352	2 pcs Screw	
	MP....4	1.775.470.02	Nr.Label	
	R.....1	57.11.3223	22 KOhm 1%, 0.25W, MF	
	RA....1	1.775.350.01	2x10KOhm pos.log	
	S.....1	55.15.0031	6x2u Push Button	

MF=Metal-film, El=Electrolytic

1.775.470.00 CR-MONITOR UNIT UL89/02/0900

DISPLAY UNIT 1.775.311.00

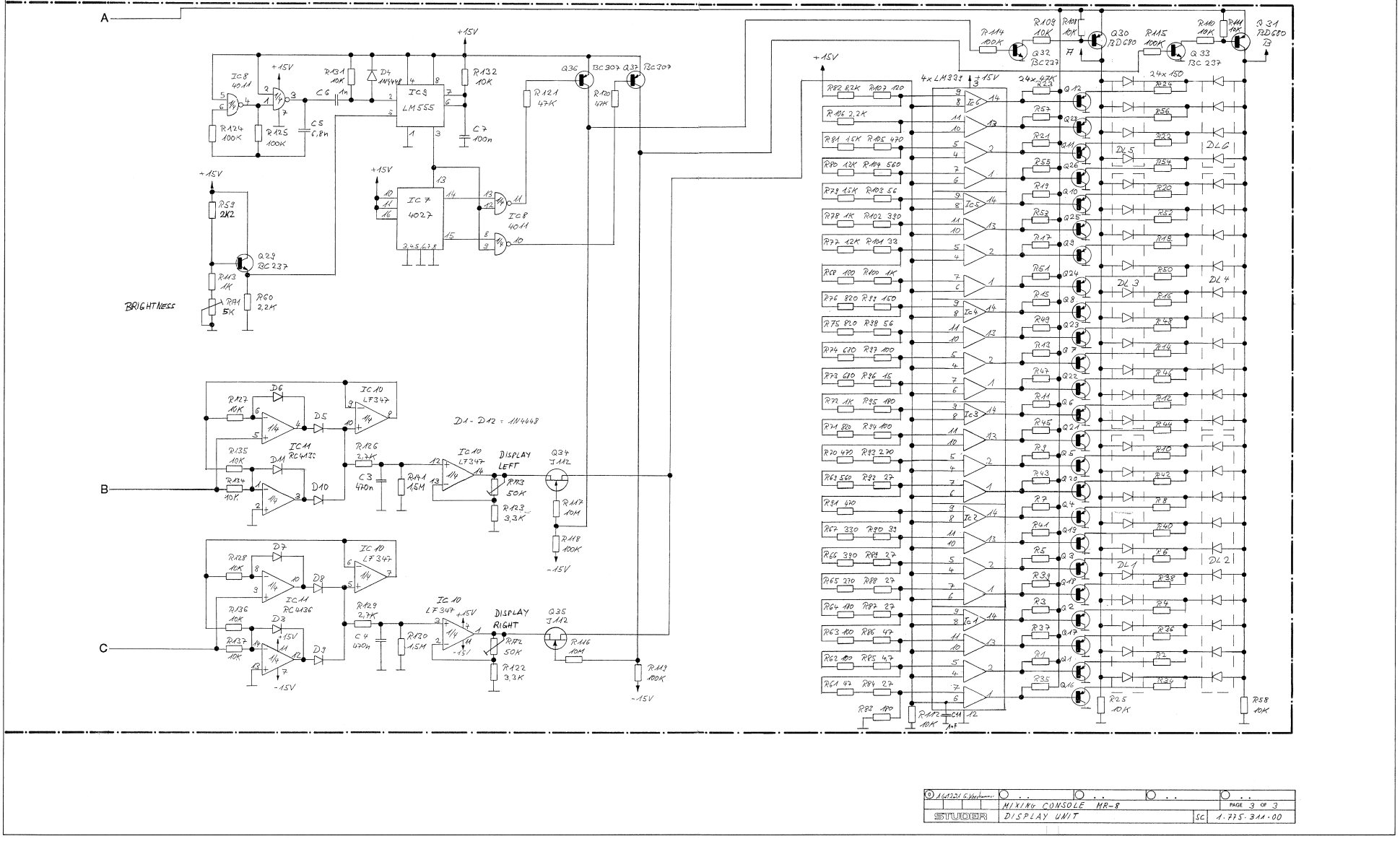


Part of CONNECTION UNIT 1.775.060.00

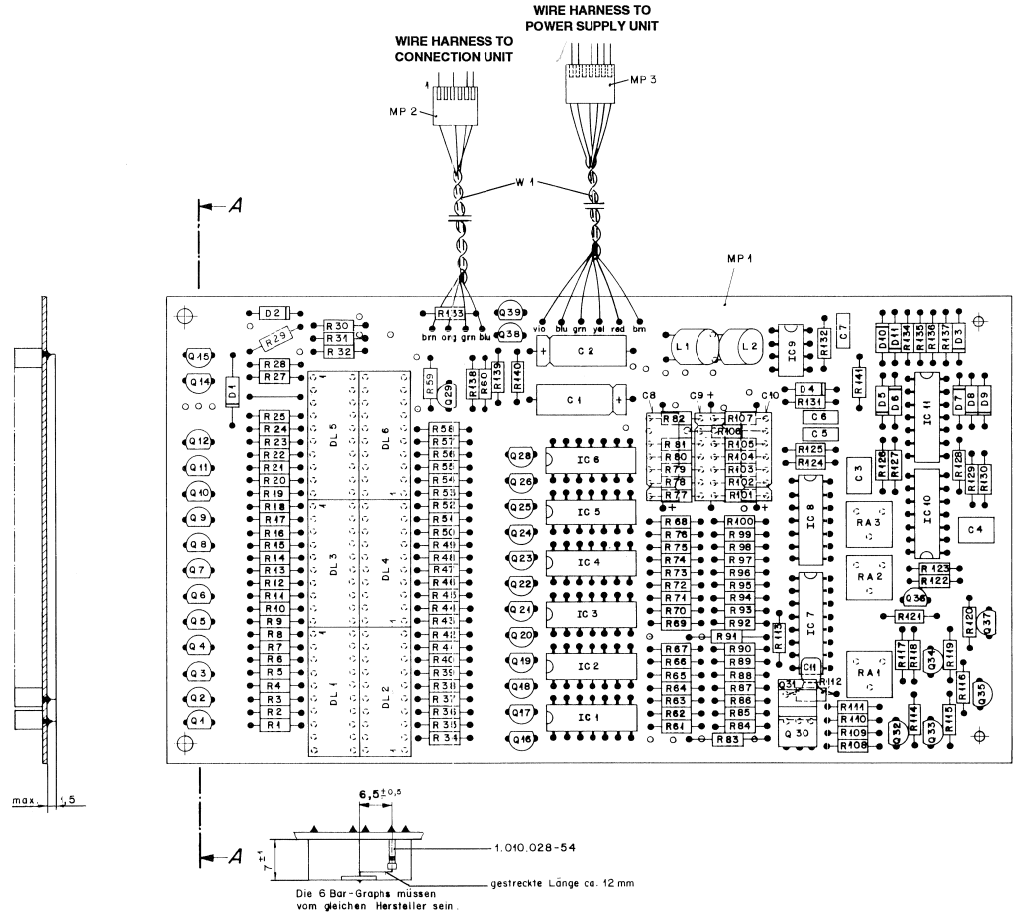
WIRE HARNESS TO CONNECTION UNIT

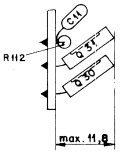
WIRE HARNESS TO POWER SUPPLY UNIT

DISPLAY UNIT 1.775.311.00



DISPLAY UNIT 1.775.311.00





Ausgabe	Änderung	Datum	Ges.	Gepr.	Gen.	Index
						3
						2
						1
		12 12 91				0

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung	Nummer
	DISPLAY UNIT ESE	1.775.311-00

Ad	..POS..	...REF.No...		DESCRIPTION	MANUFACTURER
	C.....1	59.25.4101	100 uF	-20%, 25V, EL	
	C.....2	59.25.4101	100 uF	-20%, 25V, EL	
	C.....3	59.06.0474	0.47uF	10%, 25V, PETP	
	C.....4	59.06.0474	0.47uF	10%, 25V, PETP	
	C.....5	59.06.0682	6.8 nF	10%, 25V, PETP	
	C.....6	59.06.0102	1 nF	10%, 25V, PETP	
	C.....7	59.06.0104	100 nF	10%, 25V, PETP	
	C.....8	59.25.4101	100 uF	-20%, 25V, EL	
	C.....9	59.25.4101	100 uF	-20%, 25V, EL	
	C....10	59.25.4101	100 uF	-20%, 25V, EL	
	C....11	59.32.4102	1 nF	20%, 25V, CER	
	D.....1	50.04.0125	1N 4448	any	
	D.....2	50.04.0125	1N 4448	any	
	D.....3	50.04.0125	1N 4448	any	
	D.....4	50.04.0125	1N 4448	any	
	D.....5	50.04.0125	1N 4448	any	
	D.....6	50.04.0125	1N 4448	any	
	D.....7	50.04.0125	1N 4448	any	
	D.....8	50.04.0125	1N 4448	any	
	D.....9	50.04.0125	1N 4448	any	
	D....10	50.04.0125	1N 4448	any	
	D....11	50.04.0125	1N 4448	any	
	DL....1	50.04.2161	gn/dif	BAR-GRAPH	
	DL....2	50.04.2161	gn/dif	BAR-GRAPH	
	DL....3	50.04.2161	gn/dif	BAR-GRAPH	
	DL....4	50.04.2161	gn/dif	BAR-GRAPH	
	DL....5	50.04.2150	rt/dif	BAR-GRAPH	
	DL....6	50.04.2150	rt/dif	BAR-GRAPH	
	IC....1	50.11.0104	LM339		NS
	IC....2	50.11.0104	LM339		NS
	IC....3	50.11.0104	LM339		NS
	IC....4	50.11.0104	LM339		NS
	IC....5	50.11.0104	LM339		NS
	IC....6	50.11.0104	LM339		NS
	IC....7	50.07.0027	4027		
	IC....8	50.07.1011	4011		
	IC....9	50.05.0158	LM555		NS
	IC...10	50.09.0104	LF347N		NS
	IC...11	50.05.0232	RC4136		TI
	L.....1	62.02.3222	2.2mH		
	L.....2	62.02.3222	2.2mH		
	MP....1	1.775.310.11		DISPLAY PCB	
	MP....2	54.01.0230	6-Pole	CIS	
	MP....3	54.01.0233	7-Pole	CIS	Mot
	MP....4	1.010.028.54		Connect Pin	
	MP....5	1.010.028.54		Connect Pin	
	Q.....1	50.03.0515	BC 307	PNP	Mot
	Q.....2	50.03.0515	BC 307	PNP	Mot
	Q.....3	50.03.0515	BC 307	PNP	Mot
	Q.....4	50.03.0515	BC 307	PNP	Mot
	Q.....5	50.03.0515	BC 307	PNP	Mot
	Q.....6	50.03.0515	BC 307	PNP	Mot
	Q.....7	50.03.0515	BC 307	PNP	Mot
	Q.....8	50.03.0515	BC 307	PNP	Mot
	Q.....9	50.03.0515	BC 307	PNP	Mot
	Q....10	50.03.0515	BC 307	PNP	Mot
	Q....11	50.03.0515	BC 307	PNP	Mot
	Q....12	50.03.0515	BC 307	PNP	Mot
	Q....14	50.03.0436	BC 237	NPN	Mot
	Q....15	50.03.0436	BC 237	NPN	Mot
	Q....16	50.03.0515	BC 307	PNP	Mot
	Q....17	50.03.0515	BC 307	PNP	Mot
	Q....18	50.03.0515	BC 307	PNP	Mot
	Q....19	50.03.0515	BC 307	PNP	Mot
	Q....20	50.03.0515	BC 307	PNP	Mot
	Q....21	50.03.0515	BC 307	PNP	Mot
	Q....22	50.03.0515	BC 307	PNP	Mot
	Q....23	50.03.0515	BC 307	PNP	Mot
	Q....24	50.03.0515	BC 307	PNP	Mot
	Q....25	50.03.0515	BC 307	PNP	Mot
	Q....26	50.03.0515	BC 307	PNP	Mot
	Q....28	50.03.0515	BC 307	PNP	Mot
	Q....29	50.03.0436	BC 237	NPN	Mot
	Q....30	50.03.0505	BD 680	PNP	Mot
	Q....31	50.03.0505	BD 680	PNP	Mot
	Q....32	50.03.0436	BC 237	NPN	Mot
	Q....33	50.03.0436	BC 237	NPN	Mot
	Q....34	50.03.0350	J 112	FET	Mot
	Q....35	50.03.0350	J 112	FET	Mot
	Q....36	50.03.0515	BC 307	PNP	Mot
	Q....37	50.03.0515	BC 307	PNP	Mot
	Q....38	50.03.0436	BC 237	NPN	Mot
	Q....39	50.03.0436	BC 237	NPN	Mot
	R.....1	57.11.4473	47 KOhm	2%, 0.25W, MF	
	R.....2	57.11.4151	150 Ohm	2%, 0.25W, MF	
	R.....3	57.11.4473	47 KOhm	2%, 0.25W, MF	
	R.....4	57.11.4151	150 Ohm	2%, 0.25W, MF	
	R.....5	57.11.4473	47 KOhm	2%, 0.25W, MF	
	R.....6	57.11.4151	150 Ohm	2%, 0.25W, MF	
	R.....7	57.11.4473	47 KOhm	2%, 0.25W, MF	
	R.....8	57.11.4151	150 Ohm	2%, 0.25W, MF	
	R.....9	57.11.4473	47 KOhm	2%, 0.25W, MF	
	R....10	57.11.4151	150 Ohm	2%, 0.25W, MF	

DISPLAY UNIT 1.775.311.00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	R....11	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....12	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....13	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....14	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....15	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....16	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....17	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....18	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....19	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....20	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....21	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....22	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....23	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....24	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....25	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R....27	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....28	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R....29	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....30	57.11.4153	15 KOhm 2%, 0.25W, MF	
	R....31	57.11.4822	8.2 KOhm 2%, 0.25W, MF	
	R....32	57.11.4153	15 KOhm 2%, 0.25W, MF	
	R....34	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....35	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....36	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....37	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....38	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....39	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....40	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....41	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....42	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....43	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....44	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....45	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....46	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....47	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....48	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....49	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....50	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....51	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....52	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....53	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....54	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....55	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....56	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R....57	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R....58	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R....59	57.11.4222	2.2 KOhm 2%, 0.25W, MF	
	R....60	57.11.4222	2.2 KOhm 2%, 0.25W, MF	
	R....61	57.11.4470	47 Ohm 2%, 0.25W, MF	
	R....62	57.11.4101	100 Ohm 2%, 0.25W, MF	
	R....63	57.11.4101	100 Ohm 2%, 0.25W, MF	
	R....64	57.11.4181	180 Ohm 2%, 0.25W, MF	
	R....65	57.11.4271	270 Ohm 2%, 0.25W, MF	
	R....66	57.11.4391	390 Ohm 2%, 0.25W, MF	
	R....67	57.11.4331	330 Ohm 2%, 0.25W, MF	
	R....68	57.11.4101	100 Ohm 2%, 0.25W, MF	
	R....69	57.11.4561	560 Ohm 2%, 0.25W, MF	
	R....70	57.11.4471	470 Ohm 2%, 0.25W, MF	
	R....71	57.11.4821	820 Ohm 2%, 0.25W, MF	
	R....72	57.11.4102	1 kOhm 2%, 0.25W, MF	
	R....73	57.11.4681	680 Ohm 2%, 0.25W, MF	
	R....74	57.11.4681	680 Ohm 2%, 0.25W, MF	
	R....75	57.11.4821	820 Ohm 2%, 0.25W, MF	
	R....76	57.11.4821	820 Ohm 2%, 0.25W, MF	
	R....77	57.11.4122	1.2 KOhm 2%, 0.25W, MF	
	R....78	57.11.4102	1 KOhm 2%, 0.25W, MF	
	R....79	57.11.4152	1.5 KOhm 2%, 0.25W, MF	
	R....80	57.11.4122	1.2 KOhm 2%, 0.25W, MF	
	R....81	57.11.4152	1.5 KOhm 2%, 0.25W, MF	
	R....82	57.11.4822	8.2 KOhm 2%, 0.25W, MF	
	R....83	57.11.4181	180 Ohm 2%, 0.25W, MF	
	R....84	57.11.4270	27 Ohm 2%, 0.25W, MF	
	R....85	57.11.4479	4.7 Ohm 2%, 0.25W, MF	
	R....86	57.11.4470	47 Ohm 2%, 0.25W, MF	
	R....87	57.11.4270	27 Ohm 2%, 0.25W, MF	
	R....88	57.11.4270	27 Ohm 2%, 0.25W, MF	
	R....89	57.11.4270	27 Ohm 2%, 0.25W, MF	
	R....90	57.11.4390	39 Ohm 2%, 0.25W, MF	
	R....91	57.11.4471	470 Ohm 2%, 0.25W, MF	
	R....92	57.11.4270	27 Ohm 2%, 0.25W, MF	
	R....93	57.11.4271	270 Ohm 2%, 0.25W, MF	
	R....94	57.11.4101	100 Ohm 2%, 0.25W, MF	
	R....95	57.11.4181	180 Ohm 2%, 0.25W, MF	
	R....96	57.11.4150	15 Ohm 2%, 0.25W, MF	
	R....97	57.11.4101	100 Ohm 2%, 0.25W, MF	
	R....98	57.11.4560	56 Ohm 2%, 0.25W, MF	
	R....99	57.11.4151	150 Ohm 2%, 0.25W, MF	
	R...100	57.11.4102	1 KOhm 2%, 0.25W, MF	
	R...101	57.11.4330	33 Ohm 2%, 0.25W, MF	
	R...102	57.11.4391	390 Ohm 2%, 0.25W, MF	
	R...103	57.11.4560	56 Ohm 2%, 0.25W, MF	
	R...104	57.11.4561	560 Ohm 2%, 0.25W, MF	
	R...105	57.11.4471	470 Ohm 2%, 0.25W, MF	
	R...106	57.11.4222	2.2 KOhm 2%, 0.25W, MF	
	R...107	57.11.4121	120 Ohm 2%, 0.25W, MF	
	R...108	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...109	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...110	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...111	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...112	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...113	57.11.4102	1 KOhm 2%, 0.25W, MF	
	R...114	57.11.4104	100 KOhm 2%, 0.25W, MF	
	R...115	57.11.4104	100 KOhm 2%, 0.25W, MF	
	R...116	57.11.5106	10 MOhm 2%, 0.25W, MF	
	R...117	57.11.5106	10 MOhm 2%, 0.25W, MF	
	R...118	57.11.4104	100 KOhm 2%, 0.25W, MF	
	R...119	57.11.4104	100 KOhm 2%, 0.25W, MF	
	R...120	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R...121	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R...122	57.11.4332	3.3 KOhm 2%, 0.25W, MF	
	R...123	57.11.4332	3.3 KOhm 2%, 0.25W, MF	
	R...124	57.11.4104	100 KOhm 2%, 0.25W, MF	
	R...125	57.11.4104	100 KOhm 2%, 0.25W, MF	
	R...126	57.11.4272	2.7 KOhm 2%, 0.25W, MF	
	R...127	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...128	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...129	57.11.4272	2.7 KOhm 2%, 0.25W, MF	
	R...130	57.11.5155	1.5 MOhm 5%, 0.25W, MF	
	R...131	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...132	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...133	57.11.4123	12 KOhm 2%, 0.25W, MF	
	R...134	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...135	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...136	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...137	57.11.4103	10 KOhm 2%, 0.25W, MF	
	R...138	57.11.4224	220 KOhm 2%, 0.25W, MF	
	R...139	57.11.4104	100 KOhm 2%, 0.25W, MF	
	R...140	57.11.4473	47 KOhm 2%, 0.25W, MF	
	R...141	57.11.5155	1.5 MOhm 5%, 0.25W, MF	
	RA....1	58.01.8502	5 KOhm -10%, 0.50W, C	
	RA....2	58.01.8503	50 KOhm -10%, 0.50W, C	
	RA....3	58.01.8503	50 KOhm -10%, 0.50W, C	
	W.....1	1.775.310.93	Wire List	
	W.....2	64.01.0106	10.60MM 0.60MM,WIRE BRIDGE	

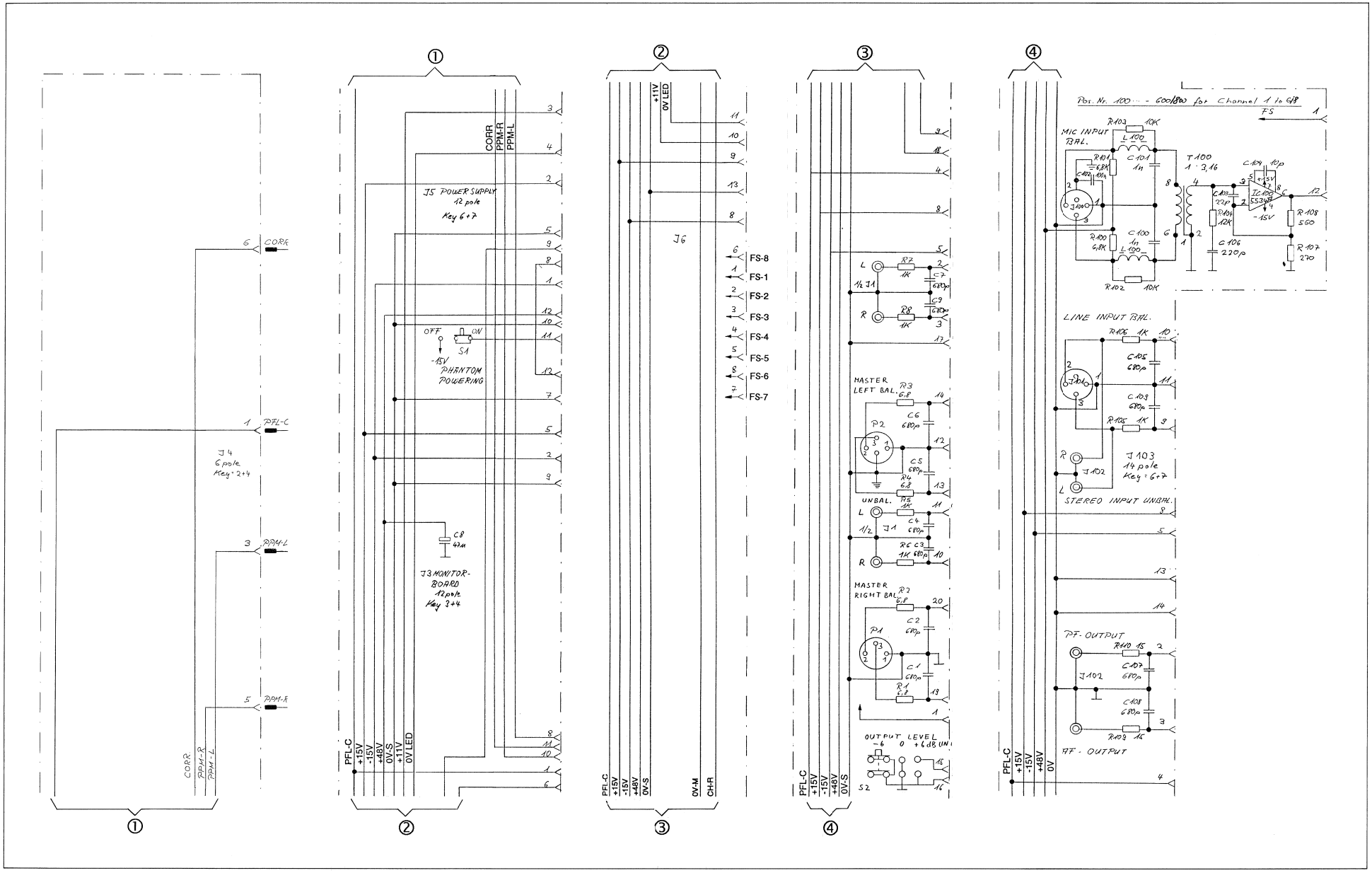
EL=Electrolytic, C=Ceramic, PETP=Polyester

MF=Metal Film

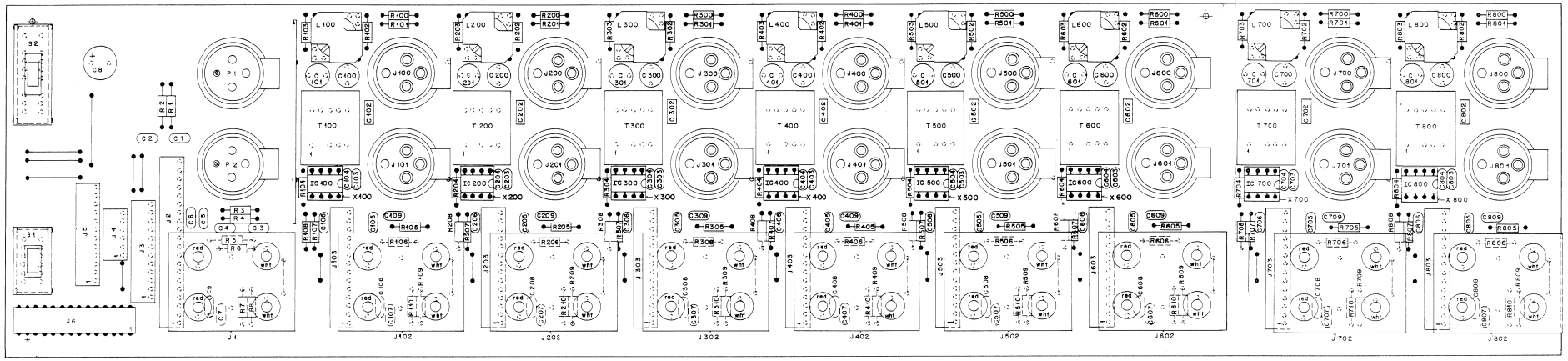
MANUFACTURER: Mot=Motorola,NS=National Semiconductor
TI=Texas Instruments

1.775.311.00 DISPLAY UNIT "ESE" KG 92/01/2200

CONNECTION UNIT 1.775.060.00



CONNECTION UNIT 1.775.060.00



+ Codierung : Schaltdraht 64.01.0108 ⌀0.8 x 8mm
(muss 1mm vorstehen)

Änderung					
Ersatz für:					
Datum	Gez.	Gepr.	Gen.	Index	
Kopie für:					

STUDER REGENSDORF ZÜRICH

Benennung: CONNECTION UNIT ESE

Nummer: 1.775.060-00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	C.....1	59.32.2681	680 pF 10%, 25V, C	
	C.....2	59.32.2681	680 pF 10%, 25V, C	
	C.....3	59.32.2681	680 pF 10%, 25V, C	
	C.....4	59.32.2681	680 pF 10%, 25V, C	
	C.....5	59.32.2681	680 pF 10%, 25V, C	
	C.....6	59.32.2681	680 pF 10%, 25V, C	
	C.....7	59.32.2681	680 pF 10%, 25V, C	
	C.....8	59.22.8470	47 nF -20%, 63V, EL	
	C.....9	59.32.2681	680 pF 10%, 25V, C	
	C...100	59.05.1102	1 nF 1%, 25V, PP	
	C...101	59.05.1102	1 nF 1%, 25V, PP	
	C...102	59.06.0104	100 nF 10%, 25V, PETP	
	C...103	59.34.2220	22 pF 10%, 25V, C	
	C...104	59.34.1100	10 pF 10%, 25V, C	
	C...105	59.32.2681	680 pF 10%, 25V, C	
	C...106	59.34.4221	220 pF 10%, 25V, C	
	C...107	59.32.2681	680 pF 10%, 25V, C	
	C...108	59.32.2681	680 pF 10%, 25V, C	
	C...109	59.32.2681	680 pF 10%, 25V, C	
	C...200	59.05.1102	1 nF 1%, 25V, PP	
	C...201	59.05.1102	1 nF 1%, 25V, PP	
	C...202	59.06.0104	100 nF 10%, 25V, PETP	
	C...203	59.34.2220	22 pF 10%, 25V, C	
	C...204	59.34.1100	10 pF 10%, 25V, C	
	C...205	59.32.2681	680 pF 10%, 25V, C	
	C...206	59.34.4221	220 pF 10%, 25V, C	
	C...207	59.32.2681	680 pF 10%, 25V, C	
	C...208	59.32.2681	680 pF 10%, 25V, C	
	C...209	59.32.2681	680 pF 10%, 25V, C	
	C...300	59.05.1102	1 nF 1%, 25V, PP	
	C...301	59.05.1102	1 nF 1%, 25V, PP	
	C...302	59.06.0104	100 nF 10%, 25V, PETP	
	C...303	59.34.2220	22 pF 10%, 25V, C	
	C...304	59.34.1100	10 pF 10%, 25V, C	
	C...305	59.32.2681	680 pF 10%, 25V, C	
	C...306	59.34.4221	220 pF 10%, 25V, C	
	C...307	59.32.2681	680 pF 10%, 25V, C	
	C...308	59.32.2681	680 pF 10%, 25V, C	
	C...309	59.32.2681	680 pF 10%, 25V, C	

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	C...400	59.05.1102	1 nF 1%, 25V, PP	
	C...401	59.05.1102	1 nF 1%, 25V, PP	
	C...402	59.06.0104	100 nF 10%, 25V, PETP	
	C...403	59.34.2220	22 pF 10%, 25V, C	
	C...404	59.34.1100	10 pF 10%, 25V, C	
	C...405	59.32.2681	680 pF 10%, 25V, C	
	C...406	59.34.4221	220 pF 10%, 25V, C	
	C...407	59.32.2681	680 pF 10%, 25V, C	
	C...408	59.32.2681	680 pF 10%, 25V, C	
	C...409	59.32.2681	680 pF 10%, 25V, C	
	C...500	59.05.1102	1 nF 1%, 25V, PP	
	C...501	59.05.1102	1 nF 1%, 25V, PP	
	C...502	59.06.0104	100 nF 10%, 25V, PETP	
	C...503	59.34.2220	22 pF 10%, 25V, C	
	C...504	59.34.1100	10 pF 10%, 25V, C	
	C...505	59.32.2681	680 pF 10%, 25V, C	
	C...506	59.34.4221	220 pF 10%, 25V, C	
	C...507	59.32.2681	680 pF 10%, 25V, C	
	C...508	59.32.2681	680 pF 10%, 25V, C	
	C...509	59.32.2681	680 pF 10%, 25V, C	
	C...600	59.05.1102	1 nF 1%, 25V, PP	
	C...601	59.05.1102	1 nF 1%, 25V, PP	
	C...602	59.06.0104	100 nF 10%, 25V, PETP	
	C...603	59.34.2220	22 pF 10%, 25V, C	
	C...604	59.34.1100	10 pF 10%, 25V, C	
	C...605	59.32.2681	680 pF 10%, 25V, C	
	C...606	59.34.4221	220 pF 10%, 25V, C	
	C...607	59.32.2681	680 pF 10%, 25V, C	
	C...608	59.32.2681	680 pF 10%, 25V, C	
	C...609	59.32.2681	680 pF 10%, 25V, C	
	C...700	59.05.1102	1 nF 1%, 25V, PP	
	C...701	59.05.1102	1 nF 1%, 25V, PP	
	C...702	59.06.0104	100 nF 10%, 25V, PETP	
	C...703	59.34.2220	22 pF 10%, 25V, C	
	C...704	59.34.1100	10 pF 10%, 25V, C	
	C...705	59.32.2681	680 pF 10%, 25V, C	
	C...706	59.34.4221	220 pF 10%, 25V, C	
	C...707	59.32.2681	680 pF 10%, 25V, C	

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	C...708	59.32.2681	680 pF 10%, 25V, C	
	C...709	59.32.2681	680 pF 10%, 25V, C	
	C...800	59.05.1102	1 nF 1%, 25V, PP	
	C...801	59.05.1102	1 nF 1%, 25V, PP	
	C...802	59.06.0104	100 nF 10%, 25V, PETP	
	C...803	59.34.2220	22 pF 10%, 25V, C	
	C...804	59.34.1100	10 pF 10%, 25V, C	
	C...805	59.32.2681	680 pF 10%, 25V, C	
	C...806	59.34.4221	220 pF 10%, 25V, C	
	C...807	59.32.2681	680 pF 10%, 25V, C	
	C...808	59.32.2681	680 pF 10%, 25V, C	
	C...809	59.32.2681	680 pF 10%, 25V, C	
	IC..100	50.05.0244	NE5534A	Sig
	IC..200	50.05.0244	NE5534A	Sig
	IC..300	50.05.0244	NE5534A	Sig
	IC..400	50.05.0244	NE5534A	Sig
	IC..500	50.05.0244	NE5534A	Sig
	IC..600	50.05.0244	NE5534A	Sig
	IC..700	50.05.0244	NE5534A	Sig
	IC..800	50.05.0244	NE5534A	Sig
	J.....1	54.21.1020	4-Pole Pin Jacks	
	J.....2	54.01.0237	20-Pole CIS	
	J.....3	54.01.0235	12-Pole CIS	
	J.....4	54.01.0238	6-Pole CIS	
	J.....5	54.01.0235	12-Pole CIS	
	J.....6	54.01.0310	14-Pole CIS	
	J...100	54.21.2002	XLR	
	J...101	54.21.2002	XLR	
	J...102	54.21.1020	4-Pole Pin Jacks	
	J...103	54.01.0300	14-Pole CIS	
	J...200	54.21.2002	XLR	
	J...201	54.21.2002	XLR	
	J...202	54.21.1020	4-Pole Pin Jacks	
	J...203	54.01.0300	14-Pole CIS	
	J...300	54.21.2002	XLR	

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	J...301	54.21.2002	XLR	
	J...302	54.21.1020	4-Pole Pin Jacks	
	J...303	54.01.0300	14-Pole CIS	
	J...400	54.21.2002	XLR	
	J...401	54.21.2002	XLR	
	J...402	54.21.1020	4-Pole Pin Jacks	
	J...403	54.01.0300	14-Pole CIS	
	J...500	54.21.2002	XLR	
	J...501	54.21.2002	XLR	
	J...502	54.21.1020	4-Pole Pin Jacks	
	J...503	54.01.0300	14-Pole CIS	
	J...600	54.21.2002	XLR	
	J...601	54.21.2002	XLR	
	J...602	54.21.1020	4-Pole Pin Jacks	
	J...603	54.01.0300	14-Pole CIS	
	J...700	54.21.2002	XLR	
	J...701	54.21.2002	XLR	
	J...702	54.21.1020	4-Pole Pin Jacks	
	J...703	54.01.0300	14-Pole CIS	
	J...800	54.21.2002	XLR	
	J...801	54.21.2002	XLR	
	J...802	54.21.1020	4-Pole Pin Jacks	
	J...803	54.01.0300	14-Pole CIS	
	L...100	1.022.207.00		ST
	L...200	1.022.207.00		ST
	L...300	1.022.207.00		ST
	L...400	1.022.207.00		ST
	L...500	1.022.207.00		ST
	L...600	1.022.207.00		ST
	L...700	1.022.207.00		ST
	L...800	1.022.207.00		ST

CONNECTION UNIT 1.775.060.00

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	MP....1	1.775.060.11	Connection Unit PCB	
	MP....2	1.775.320.01	Screening	
	MP....3	1.775.060.01	Nr. Label	
	MP....4	43.01.0108	ESE Label	
	P.....1	54.21.2001	XLR	
	P.....2	54.21.2001	XLR	
	R.....1	57.11.3689	6.8 Ohm 1%, 0.25W, MF	
	R.....2	57.11.3689	6.8 Ohm 1%, 0.25W, MF	
	R.....3	57.11.3689	6.8 Ohm 1%, 0.25W, MF	
	R.....4	57.11.3689	6.8 Ohm 1%, 0.25W, MF	
	R.....5	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R.....6	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R.....7	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R.....8	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R...100	57.99.0250	6.8 KOhm 0.1%, 0.25W, MF	
	R...101	57.99.0250	6.8 KOhm 0.1%, 0.25W, MF	
	R...102	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...103	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...104	57.11.3123	12 KOhm 1%, 0.25W, MF	
	R...105	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R...106	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R...107	57.11.3271	270 Ohm 1%, 0.25W, MF	
	R...108	57.11.3561	560 Ohm 1%, 0.25W, MF	
	R...109	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...110	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...200	57.99.0250	6.8 KOhm 0.1%, 0.25W, MF	
	R...201	57.99.0250	6.8 KOhm 0.1%, 0.25W, MF	
	R...202	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...203	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...204	57.11.3123	12 KOhm 1%, 0.25W, MF	
	R...205	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R...206	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R...207	57.11.3271	270 Ohm 1%, 0.25W, MF	
	R...208	57.11.3561	560 Ohm 1%, 0.25W, MF	
	R...209	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...210	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...300	57.99.0250	6.8 KOhm 0.1%, 0.25W, MF	
	R...301	57.99.0250	6.8 KOhm 0.1%, 0.25W, MF	
	R...302	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...303	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...304	57.11.3123	12 KOhm 1%, 0.25W, MF	
	R...305	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R...306	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R...307	57.11.3271	270 Ohm 1%, 0.25W, MF	
	R...308	57.11.3561	560 Ohm 1%, 0.25W, MF	
	R...309	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...310	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...400	57.99.0250	6.8 KOhm 0.1%, 0.25W, MF	
	R...401	57.99.0250	6.8 KOhm 0.1%, 0.25W, MF	
	R...402	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...403	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...404	57.11.3123	12 KOhm 1%, 0.25W, MF	
	R...405	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R...406	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R...407	57.11.3271	270 Ohm 1%, 0.25W, MF	
	R...408	57.11.3561	560 Ohm 1%, 0.25W, MF	
	R...409	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...410	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...500	57.99.0250	6.8 KOhm 0.1%, 0.25W, MF	
	R...501	57.99.0250	6.8 KOhm 0.1%, 0.25W, MF	
	R...502	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...503	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...504	57.11.3123	12 KOhm 1%, 0.25W, MF	
	R...505	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R...506	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R...507	57.11.3271	270 Ohm 1%, 0.25W, MF	
	R...508	57.11.3561	560 Ohm 1%, 0.25W, MF	
	R...509	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...510	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...600	57.99.0250	6.8 KOhm 0.1%, 0.25W, MF	
	R...601	57.99.0250	6.8 KOhm 0.1%, 0.25W, MF	
	R...602	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...603	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...604	57.11.3123	12 KOhm 1%, 0.25W, MF	
	R...605	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R...606	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R...607	57.11.3271	270 Ohm 1%, 0.25W, MF	
	R...608	57.11.3561	560 Ohm 1%, 0.25W, MF	
	R...609	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...610	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...700	57.99.0250	6.8 KOhm 0.1%, 0.25W, MF	
	R...701	57.99.0250	6.8 KOhm 0.1%, 0.25W, MF	
	R...702	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...703	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...704	57.11.3123	12 KOhm 1%, 0.25W, MF	
	R...705	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R...706	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R...707	57.11.3271	270 Ohm 1%, 0.25W, MF	
	R...708	57.11.3561	560 Ohm 1%, 0.25W, MF	
	R...709	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...710	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...800	57.99.0250	6.8 KOhm 0.1%, 0.25W, MF	
	R...801	57.99.0250	6.8 KOhm 0.1%, 0.25W, MF	
	R...802	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...803	57.11.3103	10 KOhm 1%, 0.25W, MF	
	R...804	57.11.3123	12 KOhm 1%, 0.25W, MF	
	R...805	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R...806	57.11.3102	1 KOhm 1%, 0.25W, MF	
	R...807	57.11.3271	270 Ohm 1%, 0.25W, MF	
	R...808	57.11.3561	560 Ohm 1%, 0.25W, MF	
	R...809	57.11.3150	15 Ohm 1%, 0.25W, MF	
	R...810	57.11.3150	15 Ohm 1%, 0.25W, MF	
	S.....1	55.12.0011	2*2u	
	S.....2	55.12.0006	3*2u	
	T...100	1.022.417.00	1:3.16	ST
	T...200	1.022.417.00	1:3.16	ST
	T...300	1.022.417.00	1:3.16	ST
	T...400	1.022.417.00	1:3.16	ST
	T...500	1.022.417.00	1:3.16	ST
	T...600	1.022.417.00	1:3.16	ST
	T...700	1.022.417.00	1:3.16	ST
	T...800	1.022.417.00	1:3.16	ST
	XIC.100	53.03.0166	8-pole	IC-Socket
	XIC.200	53.03.0166	8-pole	IC-Socket
	XIC.300	53.03.0166	8-pole	IC-Socket
	XIC.400	53.03.0166	8-pole	IC-Socket
	XIC.500	53.03.0166	8-pole	IC-Socket
	XIC.600	53.03.0166	8-pole	IC-Socket
	XIC.700	53.03.0166	8-pole	IC-Socket
	XIC.800	53.03.0166	8-pole	IC-Socket

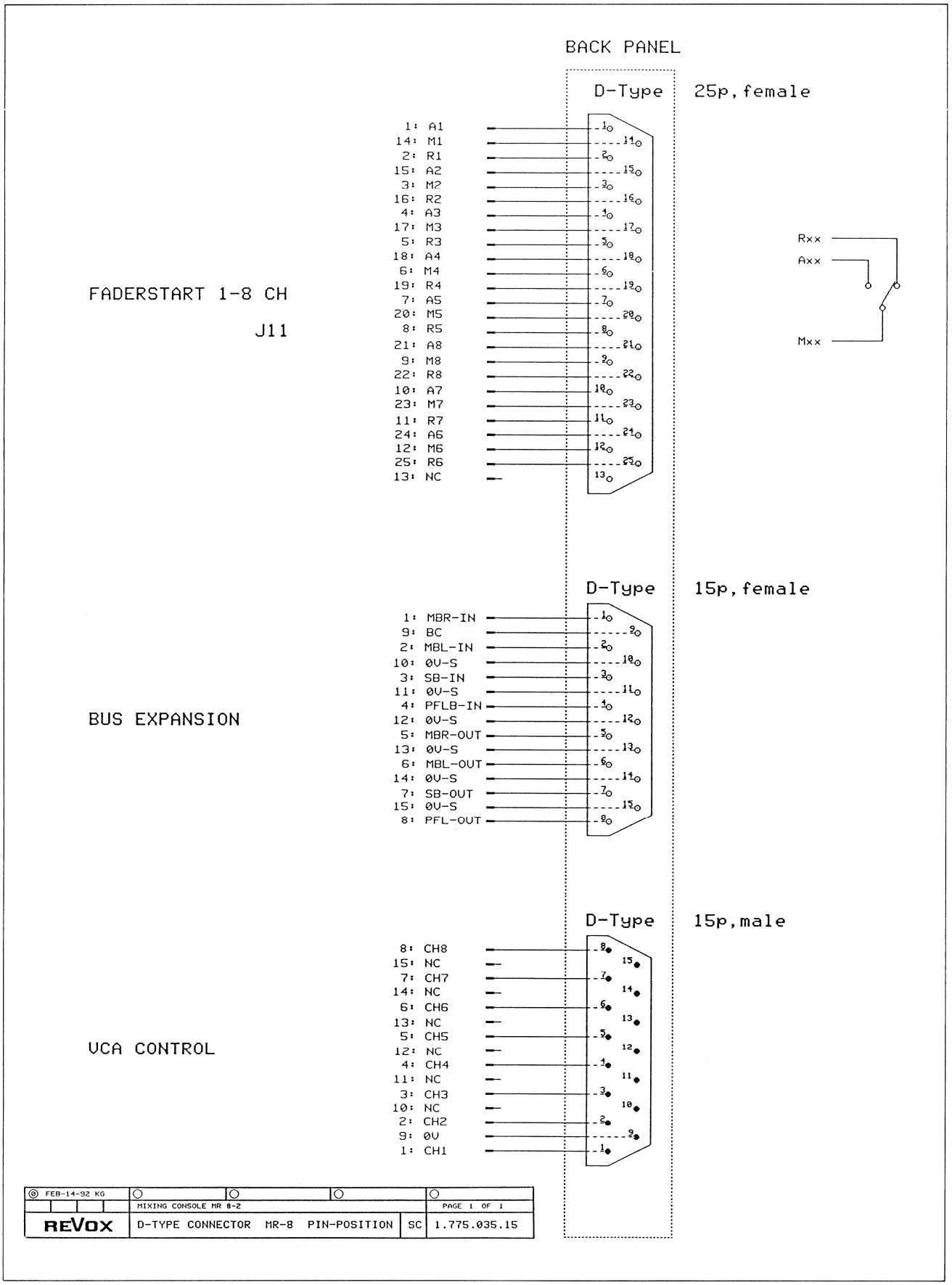
Input Channel 1-8 : NO. 100..- 800..
Master Channel : NO. 1....

Mf=Metalfilm

C=Ceramic,PETP=Polyester,EL=Electrolytic,PP=Polypropylen

MANUFACTURER: Sig=Signetics, ST=Studer

1.775.060.00 CONNECTION UNIT KG 92/01/2200

END
→

D-TYPE CONNECTOR 1.775.035.15